

Chapter III : MARINE RECREATIONAL FISHERY STATISTICS

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PROGRAM NARRATIVE

Information on commercial fisheries has long been collected by the National Oceanic and Atmospheric Administration (NOAA) Fisheries, formerly the National Marine Fisheries Service (NMFS). However, data on marine recreational fisheries were not collected in a systematic manner by NOAA Fisheries on a continuing basis until 1979. The purpose of the NOAA Fisheries Marine Recreational Information Program (MRIP) is to establish a reliable database for estimating the impact of marine recreational fishing on marine resources.

Effective fisheries management requires information on the number and size distributions of each species caught in every state, sub-region, or finer sub-unit. The North Carolina Fisheries Reform Act of 1997 mandated the development of fishery management plans (FMPs) for fisheries of importance to North Carolina. The estimates of finfish harvest and angler participation provided by the MRIP play a key role in the FMP development process. The MRIP helps meet the goals of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). The MSFCMA mandates a national program for management of fishery resources in the ocean zone known as the Exclusive Economic Zone (EEZ), or the area between 3 to 200 miles from shore. MSFCMA also requires that fishery management plans consider both recreational and commercial fisheries as well as their harvests.

Due to the MRIP survey's inability to provide reliable catch statistics for fisheries management of some species at the state level due to low sample size, the North Carolina Division of Marine Fisheries (NCDMF) increased the annual number of anglers interviewed by approximately six times (1,400 to 8,000) beginning in 1987. A target sample size of 15,000 angler intercepts was later established to further improve precision of catch estimates, which improved dramatically. The NCDMF also implemented quality control measures needed to improve estimates of catch.

The NCDMF receives approximately 700 data requests for information from MRIP each year. This chapter is designed to help understand how the data are collected and what types of data are available within this program. This summary should also allow individuals to more precisely choose the information that is most applicable to their specific needs.

SURVEY METHODOLOGY

Marine Recreational Information Program (MRIP)

MRIP is a national program that uses several surveys to obtain catch and effort data for marine finfish at the regional level. MRIP evolved from the Marine Recreational Fisheries Statistics Survey (MRFSS) and included improvements in survey and estimation methodologies to remove sources of bias. Prior to 2018, MRIP consisted of two complementary surveys: 1) the Coastal Household Telephone Survey (CHTS), a random-digit-dialing landline telephone survey within the coastal zones of each state to determine the number of fishing households and the numbers of fishing trips taken and 2) the Access Point Angler Intercept Survey (APAIS) for obtaining catch rates and species composition from anglers fishing in shore-based, charter boat, and private boat fishing modes. The data from the two surveys were combined to provide estimates of the total number of fish caught, released, and harvested; weight of the harvest; total number of trips; and the number of people participating in marine recreational fishing. The National Research Council (NRC) identified under-coverage, inefficiency and bias issues within the MRFSS survey and estimation methodologies (NRC 2006). These deficiencies spurred the development of MRIP as an alternative data collection program to MRFSS.

The APAIS component of MRIP was improved in 2013 to sample throughout the day (24-hour coverage) and remove any potential bias by controlling the movement of field staff to alternative sampling sites. Before this improvement, samplers were allowed to move from their assigned site to more active fishing locations but could not statistically account for this movement when calculating estimates. MRIP also implemented the Fishing Effort Survey (FES) in 2018 to address the NRC concerns of under-coverage of the angling public, declining number of households using landline telephones, reduced response rates, and memory recall issues of the CHTS.

Now, MRIP consists of two complementary surveys: 1) a mail survey of households (FES) in coastal counties to obtain trip information and 2) an intercept survey of anglers (APAIS) at shore side access sites to obtain catch rates and species composition. The data from the two surveys are combined to provide estimates of the total number of fish caught, released, and harvested; the weight of the harvest; the total number of trips; and the number of people participating in marine recreational fishing. For-hire fishing effort is captured through telephone interviews of for-hire captains. All states on the Atlantic and Gulf coasts participate in the FES and APAIS with the exception of Texas and Louisiana.

Dockside Interviews

The intercept survey gathers catch and demographic data from marine recreational anglers who have just completed fishing in one of five fishing modes (the type of place or platform from which marine recreational fishing occurred):

- Charter boat
- Private/rental boat
- Beach/bank
- Man-made structure

- Headboat

The intercept survey in North Carolina continuously samples angler catches throughout the year. Intercept sampling is separated by mode and wave (two-month time period).

A complete statewide list of access sites for marine recreational fishing is continuously updated (<https://www.st.nmfs.noaa.gov/msd/html/siteRegister.jsp>). Sites are chosen for interviewing by randomly selecting from access sites that are weighted by estimates of expected fishing activity. The sites are weighted to ensure that each angler trip has a representative probability of being included in the sample. Sampling is distributed among weekdays, weekends, and holidays.

Anglers are intercepted, screened, and interviewed at assigned access sites upon completion of their fishing trips. Data are recorded on standard APAIS coding forms (Appendix 2). A small number of interviews (less than five percent) are conducted with beach/bank shore mode anglers who have not completed their trip. At heavy use sites, every attempt is made to intercept and interview all anglers. If that is not possible, angler counts are obtained to augment interviews. In 2005, NCDMF began routine sampling of headboats to obtain length data from discards.

Each intercept interview consists of:

- an introduction to the survey,
- an oral interview concerning the fishing trip just completed,
- thorough examination of the respondent's catch (visually inspect for correct species identification), and
- measurement of lengths and weights from all of the fish in the respondent's catch (or if necessary, a random sample).

Interview procedures vary slightly among fishing modes:

- Private/rental/charter boat anglers are interviewed at boat ramps, marina slips, and hoists while they are leaving their boats or dockside while they are cleaning their boats.
- Anglers fishing from natural shorelines can be widely distributed along beaches and banks with multiple access points. Samplers often have to move from angler to angler within the defined boundaries of the site to obtain interviews.
- Man-made structures commonly have a single exit point where samplers can easily intercept departing anglers.
- Headboat sampling is conducted onboard the vessel at sea.

Interviewing procedures have been developed to allow separate recording of information on:

- catch unavailable for identification (Type B catch),
- available catch that cannot be easily subdivided among anglers,
- catch obtained during multiple-day boat trips, and
- at-sea discards from headboats.

Fish that are available for identification, enumeration, weighing, and measuring by the interviewers are called landings or Type A catch. Fish not brought ashore in whole form but used as bait,

filleted, discarded dead, or are otherwise unavailable for inspection are called Type B1 catch. Finally, fish released alive are called Type B2 catch. Type A and Type B1 together comprise harvest, while all three types (A, B1, and B2) represent total catch.

Species such as flounder and kingfish are morphologically ambiguous and cannot be reliably identified to the species level by the angler. As such, discards are identified to the nearest taxonomic category and estimates of released catch are produced at the genus level. Because there are no sources of information with an appropriate timeline or area resolution that can be used to partition the released estimates of ambiguous congener species into their constituent species, Type A catch is used to delineate between them. For example, a ratio of Southern Flounder, Summer Flounder, and Gulf Flounder to total flounder observed is determined from the Type A catch at the estimation level (i.e., state, year, wave, area). These proportions of southern, summer, and Gulf Flounder are applied to the estimates of left-eyed flounder released (unobserved Type B2) catch to produce estimates of discards for each of the specific flounder species. An identical approach is applied to kingfish (e.g., gulf, southern, northern) as well as Spotted Seatrout and Weakfish.

For the Type B catch (fish not available for the interviewer's examination), information is only recorded for individual anglers. Beginning in 2005, headboat anglers were sampled at sea, allowing accurate identification of Type B catch for the first time. For the Type A catch (fish available for inspection), grouped catch is allowed, except when in beach/bank mode. This is a concession to the fact that multiple anglers often will keep all their catch in a single container, and at the end of the trip they are not sure who caught which fish.

Fishing Effort Survey

The FES mail survey employs a dual-frame design with two non-overlapping frames: 1) state residents sampled from the United States Postal Service computerized delivery sequence file (CDS) and 2) non-residents sampled from state-specific lists of licensed saltwater anglers. Non-residents are defined as individuals who were licensed to fish in one of the target states but lived in a different state. Sampling from the CDS uses a stratified design in which households with licensed anglers are identified prior to data collection. The address frame for each state is stratified into coastal and non-coastal strata defined by geographic proximity to the coast. For each wave and stratum, a simple random sample of addresses are selected from the CDS and matched to addresses of anglers who are licensed to fish within their state of residence. Non-resident anglers were sampled directly from state license databases. The sample frame for each of the targeted states consisted of unique household addresses that were not in the targeted state but had at least one person with a license to fish in the targeted state during the wave.

The FES mail survey (Appendix 3) collects fishing effort data for all household residents, including the number of saltwater fishing trips by fishing mode (shore and private boat). The FES is a self-administered mail survey, administered for six, two-month reference waves annually. The initial survey mailing is sent one week prior to the end of the reference wave so that materials are received right at the end of that wave. This initial mailing is delivered by regular, first class mail and includes a cover letter stating the purpose of the survey, a survey questionnaire, a postage-

paid return envelope, and a \$2 cash incentive. One week after the initial mailing, a follow-up, thank you and reminder postcard is mailed via regular first-class mail to all sampled addresses. For addresses that could be matched to a landline telephone number, an automated voice message is also delivered as a reminder to complete and return the questionnaire. Three weeks after the initial survey mailing, a final mailing is delivered to all addresses that have not yet responded to the survey.

Effort Estimates

In the MRIP, fishing effort is defined as the estimated number of fishing trips taken by individual anglers. The number of individual fishing trips is estimated for each state, coastal county, mode, and bimonthly wave. Total effort represents residents who are coastal, non-coastal, and out-of-state. Data from the mail survey of households are used to calculate the mean number of trips per household in each fishing mode during each wave.

The FES estimates fishing effort by residents of sampled states in number of angler-trips. The basic approach uses a Horvitz-Thompson total estimator with sample weights that reflect sample inclusion probabilities, a nonresponse adjustment, and a post-stratification adjustment to known population totals. A final adjustment that accounts for non-resident (i.e. out of frame) fishing activity is applied to estimate total effort by fishing mode. This adjustment is derived from the APAIS.

After the final effort estimates are generated, they are stratified into primary fishing areas to produce effort estimates by state, mode, wave, and area. An area is defined by the distance offshore where the fishing took place. The areas are inland, ocean ≤ 3 miles, and ocean > 3 miles, although this can vary from state to state (see *Appendix III.4 for complete definitions and discussion*). Within each state, wave, and mode, trips are allocated to a primary fishing area in proportion to the number of interviewed anglers in that state, wave, and mode who made trips in that area. The intent is to produce effort estimates at a level that is suitable for multiplication with catch per angler trip estimates from the intercept survey.

Catch Estimates

The catch of each finfish species is estimated for each sub-region, state, fishing mode, primary fishing area, and wave. The total number of fish caught in a particular fishing mode and area of fishing is estimated from:

- the estimated number of fishing trips taken in that state, wave, mode, and area; and
- the mean number of fish caught per trip taken in that state, wave, mode, and area.

All fish that are caught by intercepted anglers are not available for the interviewer's inspection. The intercept interview and the estimation procedures distinguish between those fish brought ashore in whole form, and those not brought ashore in whole form:

- Fish that are available for identification, enumeration, weighing and measuring by the interviewers are called landings or Type A catch.
- Fish not brought ashore in whole form but used as bait, filleted, or discarded dead are called Type B1 catch (Type A and Type B1 together comprise harvest).

- Fish released alive are called Type B2 catch.

Catch per trip estimates and expanded catch estimates are made for these three types of catch. Total Catch is the sum of Type A catch, Type B1 catch, and Type B2 catch. The purpose is to distinguish between those species identified and measured by trained interviewers, and those species reported to the interviewers by anglers. Anglers occasionally misidentify species; therefore, their reported measurements are subject to several types of bias.

As noted above, only individual interviews are allowed for Type B catch, while for Type A catch some amount of clustering is allowed and accounted for in the estimation. Self-weighting estimators of catch per trip were used, meaning that the site selection methodology (giving sites with more anglers a higher probability of being sampled) ensures all angler trips have an equal probability of being included in the sample.

Lengths and weights are obtained by sampling the fish caught and brought ashore in whole form by intercepted anglers. Therefore, estimated weights can only be calculated directly for Type A catch fish. Since the size composition of the remainder of the total catch (Type B1 catch and Type B2 catch) is unknown and may differ from that of the fish represented in Type A catch, estimating the weight of the remainder of the catch is not possible without assumptions.

In estimating the weight of harvested fish (Type A and B1 catch), we assume that the mean weight of the Type B1 catch is equal to that of the Type A catch for each sub-region, state, mode, primary area, wave, and species.

Most of the trips sampled in the intercept survey are completed trips with anglers being interviewed only at the end of the fishing trip. Some incomplete trips are sampled in the shore mode which are converted into complete trips by multiplying the recorded catch per hour by the anticipated total trip length. Once catch per trip estimates have been produced for each sub-region, state, wave, mode, area, species, and catch type, they can be multiplied by the appropriate effort estimate to produce estimates of total catch. For estimates of total harvest weight, these total catch estimates are in turn multiplied by the average weight per measured fish in the appropriate mode and area.

Catch estimates are obtained using information from both the dockside interviews and mail/telephone surveys using the following formula:

$$(\text{Angler Trips}) * (\text{Average Catch Per Angler Trip}) = \text{Total Catch}$$

where trips equal the total number of finfish trips by mode and area, average catch per trip is the mean catch by species, mode, and area, and total catch is the total of each species by mode and area.

Catch estimates calibrated using the FES are presented for the last 20 years. However, data back to 1981 were also calibrated and are available upon request (see Contacts on page III-13).

Precision of Estimates

The numbers and pounds presented are estimates, not actual counts; therefore, the level of precision varies. Precision refers to the estimate's variability. Statistical comparison between numbers must include this variability.

Precision refers to the dispersion of the sample measurements used to calculate an estimate and the resultant variability in the estimate. The square root of the estimate of sampling variance is an estimate of the standard error of the estimate and is almost universally used in sample surveys as a measure of precision.

The standard error is necessary for calculating confidence intervals around an estimate. The width of a confidence interval is a function of the probability level selected and is determined from the Student's t-distribution or the normal distribution. Using the normal distribution, the most commonly used confidence interval (a 95% confidence interval) is given by:

$$\text{estimate} \pm 1.96 \times (\text{estimate of standard error}).$$

Confidence intervals provide another indication of the precision of the estimated total catch. At the same confidence level, a broad interval relative to the estimate indicates a less precise estimate than does a narrow interval. The 95 percent confidence interval indicates a 95% certainty that the actual total catch is between the upper and lower confidence limits.

The standard error is also used to calculate the proportional standard error (PSE). The PSE expresses the standard error as a percentage of the estimate (standard error/estimate). It provides an alternative measure of precision and is useful in comparing the relative precision of two estimates.

A small PSE indicates a more precise estimate than does a large PSE. A PSE of 20% or less is generally considered acceptable in fisheries data. An alternative way of expressing a 95% confidence interval, in terms of percentages, would be:

$$\text{estimate} \pm (1.96 \times \text{PSE}) \text{ percent.}$$

SURVEY LIMITATIONS

Rare Event and Pulse Species

Species that seldom occur in recreational catches are referred to as rare event species. They include such species as Tripletail, Tarpon, Swordfish, Gulf Flounder, etc. Pulse fisheries target species such as Cobia that are highly migratory and only occur seasonally in North Carolina waters, as well as species such as Red Snapper which have a very limited recreational season. For both rare event and pulse fishery species, samplers are unable to intercept enough anglers with these species in their catch to produce precise estimates of catch.

Anadromous Species

The MRIP is only conducted in saltwater and brackish water areas, along with tidal portions of sounds, bays, and rivers. Freshwater areas are not included in the survey. Alternative methods for assessing recreational catch of freshwater resident species and anadromous species such as American Shad, Hickory Shad, and Striped Bass must be considered. See chapter IV.

CONTACTS

The MRIP is administered by the NOAA Fisheries Office of Science & Technology, Fisheries Statistics Division. Several states, including North Carolina, manage the dockside sampling portion of the survey. Catch and effort estimates by year and species are available back to 1981. For additional information regarding the survey or to request data not presented in this report, please contact:

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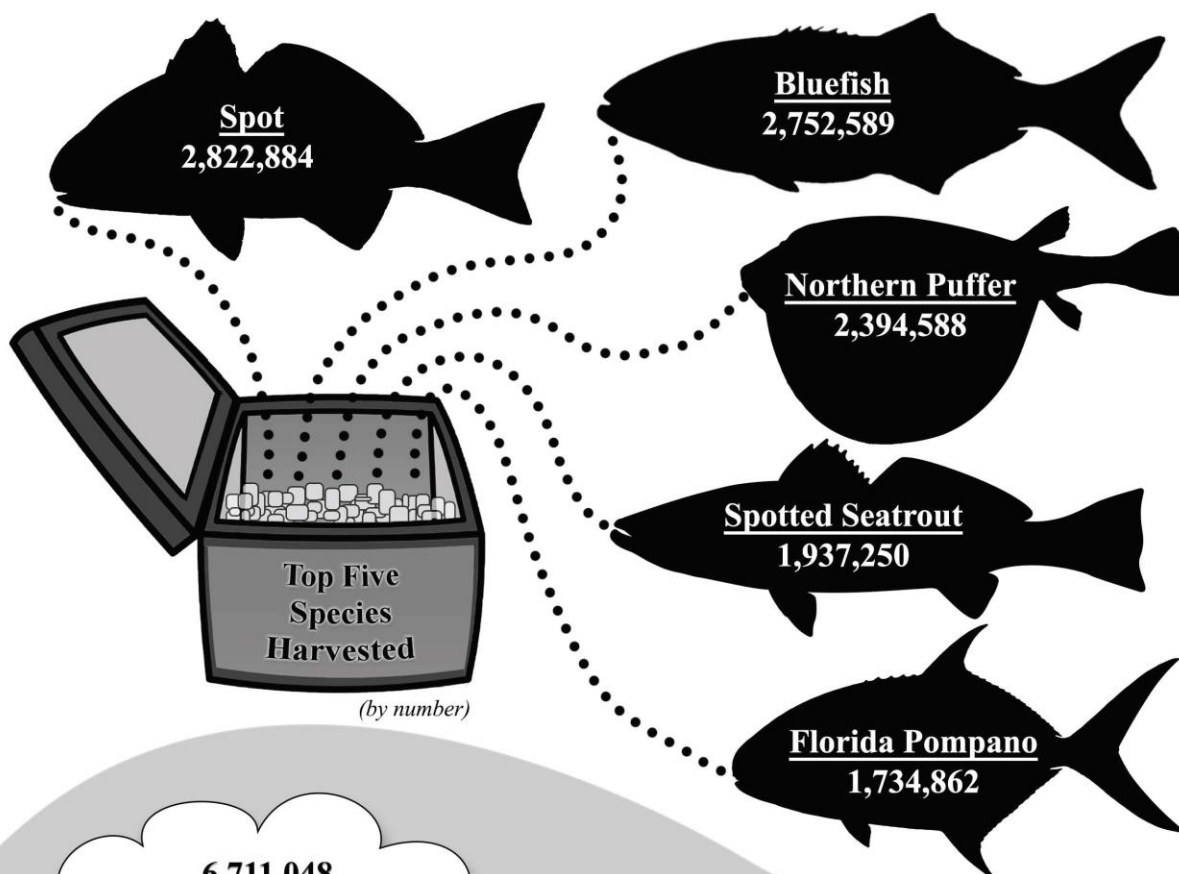
North Carolina Division of Marine Fisheries
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INFOGRAPHIC

Marine Recreational Fishery Statistics

*2019 Angler
Catch and Effort*



6,711,048
Beach/Bank
Trips

4,646,520
Private Boat
Trips

6,021,580
Manmade
Trips

160,692
Charter boat
Trips

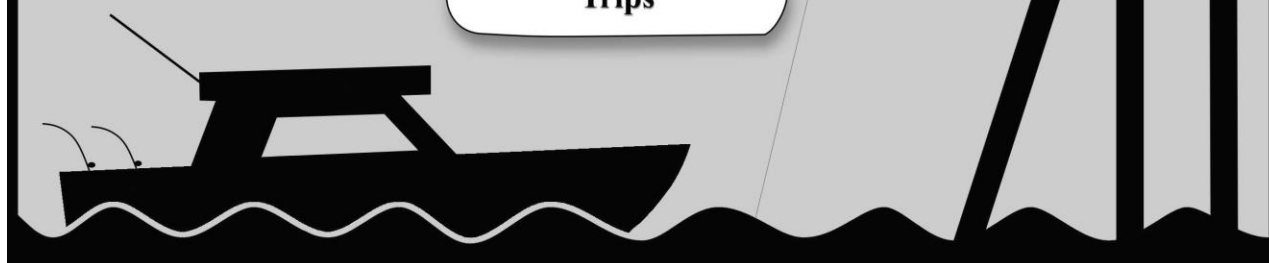


Table III.1 North Carolina marine recreational finfish harvest by species.

Species	Number Harvested		Pounds Harvested	
	2019	2018	2019	2018
Amberjack	4,236	11,742	81,769	227,441
Barracudas	1,661	5,848	15,529	52,304
Bluefish	2,752,589	3,304,587	3,011,480	2,630,685
Bonito, Atlantic	35,874	12,576	122,931	42,879
Cobia	10,090	25,331	254,963	685,962
Croaker, Atlantic	651,268	472,917	224,337	164,644
Dolphinfish	458,086	495,435	3,147,384	3,318,532
Drum, Black	156,401	134,624	404,452	428,273
Drum, Red	97,186	299,577	436,219	1,452,358
Flounder, Southern	163,045	217,805	387,203	495,289
Flounder, Summer	34,895	57,913	52,872	92,032
Groupers	10,245	1,160	104,455	8,816
Grunts	89,057	11,913	91,273	16,762
Jacks	14,269	44,467	54,844	130,220
Kingfishes	3,370,636	1,731,340	881,104	479,739
Mackerel, King	184,962	102,675	1,446,939	1,018,459
Mackerel, Spanish	1,478,890	1,012,889	1,694,247	1,156,702
Perch, Silver	32,444	6,595	7,520	1,594
Pigfish	432,005	418,174	146,570	163,686
Pinfish	955,550	886,712	217,718	188,046
Pompano	1,734,862	318,702	769,603	245,670
Porgies	8,975	4,045	9,311	7,592
Puffers	2,501,094	330,237	1,016,972	148,220
Sea Basses	151,999	86,153	220,377	116,825
Seatrout, Spotted	1,937,250	449,473	3,334,163	658,555
Sharks	15,660	4,123	110,510	169,486
Sharks, Dogfishes	8,962	7,514	50,477	43,732
Sheepshead	221,419	343,772	590,150	735,738
Snappers	33,055	20,475	50,678	29,407
Spot	2,822,884	2,068,865	851,998	597,511
Striped Bass ¹		25	26	366
Tuna, Bluefin ²	9	35	23,922	11,918
Tuna, Yellowfin	44864	61,171	1,190,484	1,977,741
Wahoo	17,098	10,690	454,391	280,644
Weakfish	39,061	30,935	43,252	29,924

¹ Striped Bass landings reflect Atlantic Ocean catches only.

² Landings for Atlantic Bluefin Tuna reflect the Highly Migratory Species fishing year (January 1 through December 31).

NOTE: The number and pounds of finfish listed represent estimated harvest; finfish released alive are not included. Recreational finfish catches from headboats are not included in this table. The National Marine Fisheries Service collected headboat data separately in 2017.

Table III.2 North Carolina marine recreational finfish overall harvest and released finfish.

Year	Number Harvested	Pounds Harvested	Number Released
2019	22,991,602	23,819,357	58,780,769
2018	16,167,035	20,064,976	62,467,785
2017	24,992,736	27,434,020	73,343,486
2016	29,612,819	28,782,892	79,311,111
2015	32,029,176	29,382,094	76,359,197
2014	35,266,582	26,160,399	79,350,225
2013	37,097,386	28,539,154	71,387,944
2012	24,849,139	24,382,691	59,475,261
2011	28,913,465	31,138,553	61,538,383
2010	28,339,722	28,827,120	66,210,770
2009	28,373,054	32,386,251	58,585,443
2008	24,399,920	24,230,177	51,181,826
2007	32,030,305	36,948,737	49,000,158
2006	32,644,303	35,932,215	54,354,928
2005	31,216,078	37,847,540	40,759,376
2004	29,896,721	39,832,941	40,866,383
2003	33,999,152	31,081,963	37,896,160
2002	33,091,963	31,317,369	40,029,463
2001	29,434,712	35,002,246	41,169,692
2000	22,583,867	29,606,819	37,480,759
1999	18,797,344	24,025,603	30,867,860
1998	21,495,066	20,632,560	27,618,324
1997	17,611,273	25,667,654	24,463,398
1996	17,648,228	21,388,190	21,126,385
1995	20,285,155	21,318,710	21,402,764
1994	27,207,985	22,721,036	26,574,243
1993	19,959,266	18,892,022	18,868,785
1992	22,047,490	20,659,018	23,975,805
1991	25,513,630	23,226,188	21,896,152
1990	30,547,188	28,083,671	17,794,105
1989	31,860,381	29,324,818	14,661,067
1988	32,122,713	10,851,835	18,927,988
1987	27,869,954	32,592,416	12,701,702
1986	32,471,202	36,719,837	13,379,969
1985	43,539,768	31,751,840	12,912,223
1984	29,159,941	31,647,052	10,715,507
1983	33,420,274	36,416,585	8,248,603
1982	24,255,664	17,222,968	7,843,562

Table III.3 North Carolina marine recreational fishing trip estimates by mode (numbers).

Year	Beach/Bank	Charter Boat	Manmade	Private Boat	Total
2019	6,711,048	160,692	6,021,580	4,646,520	17,539,840
2018	6,879,419	148,004	5,317,495	4,279,389	16,624,306
2017	7,745,619	149,438	9,512,489	5,044,731	22,452,276
2016	10,187,550	140,575	5,970,329	4,860,391	21,158,845
2015	6,699,488	114,043	8,516,390	4,992,920	20,322,840
2014	7,919,735	96,432	6,014,374	4,895,957	18,926,498
2013	6,028,869	111,366	7,097,673	4,847,955	18,085,862
2012	7,156,627	159,160	6,184,923	5,054,638	18,555,348
2011	8,086,490	129,380	6,040,312	5,212,669	19,468,850
2010	7,877,619	138,577	7,174,395	4,982,732	20,173,323
2009	7,751,222	129,412	6,642,257	4,822,295	19,345,187
2008	8,489,916	170,428	6,067,854	4,599,900	19,328,098
2007	6,183,367	185,618	7,105,305	4,671,856	18,146,146
2006	7,199,224	201,368	7,671,720	4,542,632	19,614,943
2005	5,206,759	214,826	7,369,215	4,359,576	17,150,375
2004	6,695,734	183,039	6,245,702	4,276,395	17,400,870
2003	5,353,909	131,566	6,243,796	3,746,771	15,476,042
2002	5,501,125	142,644	5,913,968	3,539,123	15,096,859
2001	5,479,658	160,791	6,105,185	3,363,853	15,109,488
2000	5,687,088	164,116	6,088,224	3,388,516	15,327,944
1999	4,215,059	200,350	5,113,589	3,153,794	12,682,792
1998	3,677,092	189,664	4,435,131	2,806,930	11,108,817
1997	3,618,411	242,043	4,552,528	2,742,087	11,155,069
1996	3,851,521	204,608	3,895,335	2,471,857	10,423,321
1995	3,643,176	167,321	3,958,161	2,222,995	9,991,653
1994	3,874,950	177,061	4,246,772	2,231,472	10,530,255
1993	4,404,924	117,536	4,105,818	2,233,903	10,862,180
1992	4,403,691	87,352	5,097,113	2,277,847	11,866,004
1991	4,497,351	81,065	4,406,694	2,240,961	11,226,071
1990	5,338,764	83,234	4,526,403	2,164,387	12,112,788
1989	4,485,729	94,199	3,955,450	2,137,255	10,672,633
1988	4,444,539	65,320	3,960,772	2,009,639	10,480,270
1987	4,566,175	89,642	2,510,303	1,867,135	9,033,255
1986	4,260,280	101,447	2,733,767	2,076,308	9,171,802
1985	3,569,600	226,397	3,323,582	1,753,973	8,873,553
1984	3,335,089	226,710	4,027,935	1,798,108	9,387,842
1983	4,057,922	248,825	4,219,017	1,746,350	10,272,113
1982	2,789,810	97,074	2,253,604	1,721,703	6,862,191

Table III.4 North Carolina Coastal Recreational Fishing Licenses³ issued by residency.

Year	In-State	Out-of-State	Total
2019	301,847	156,759	458,606
2018	277,698	151,232	428,930
2017	305,422	164,149	469,571
2016	306,718	160,986	467,704
2015	314,557	166,287	480,844
2014	319,069	167,218	486,287
2013	316,514	163,486	480,000
2012	304,840	155,457	460,297
2011	287,914	151,332	439,246
2010	294,163	159,356	453,519
2009	281,471	153,617	435,088
2008	267,062	144,819	411,881
2007	314,569	154,952	469,521

³All lifetime inland state fishing licenses sold prior to 2007 were grandfathered into the new CRFL requirement on January 01, 2007. Lifetime CRFLs are not included in this table.

Table III.5 Directed trips for major species in North Carolina by year.

Year	Atlantic Bonito		Atlantic Croaker		Black Drum		Black Sea Bass		Bluefish	
	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2019	25,061	38.1	1,213,097	8.0	584,856	13.2	596,924	9.3	2,699,198	9.7
2018	18,257	28.0	1,093,754	8.8	773,315	14.3	481,773	10.6	3,031,288	10.4
2017	30,543	59.9	1,569,130	8.5	978,376	18.0	1,001,694	9.3	3,392,266	13.3
2016	15,679	33.8	1,542,439	9.6	927,876	17.1	928,834	12.1	3,194,322	8.8
2015	19,542	52.9	2,219,202	8.5	895,352	25.3	781,023	9.4	3,126,972	10.3
2014	28,278	31.9	1,924,556	7.6	564,678	18.0	815,832	8.3	2,871,661	6.5
2013	15,718	52.4	1,731,001	6.7	624,438	11.3	641,876	7.8	2,769,469	6.3
2012	14,514	27.3	1,250,115	5.6	573,675	9.3	888,824	5.1	2,355,827	4.5
2011	31,149	31.9	1,674,758	6.7	776,683	10.4	663,994	7.5	3,264,390	5.1
2010	9,984	33.2	1,470,467	7.6	535,406	10.4	478,332	7.5	3,027,076	4.7
2009	2,205	58.4	1,572,087	7.9	493,868	13.9	542,005	15.3	2,760,641	6.9
2008	13,758	47.0	1,157,184	8.7	742,385	11.0	331,107	12.0	3,026,633	6.4
2007	20,837	30.5	1,180,041	9.3	675,686	15.6	425,856	9.0	2,931,252	6.5
2006	5,845	40.5	1,789,975	10.4	348,977	14.3	552,372	9.3	2,470,361	7.1
2005	18,319	31.8	1,042,080	11.6	516,299	21.6	575,805	11.7	2,458,978	7.5
2004	31,923	42.0	1,120,097	13.5	392,042	15.9	392,504	10.1	2,112,219	6.7
2003	22,592	31.7	845,302	7.1	616,688	14.9	275,489	10.3	1,682,375	6.3
2002	18,446	55.8	724,894	10.9	456,367	12.9	301,959	12.3	2,087,495	5.6
2001	12,664	43.7	846,118	9.8	295,179	16.6	309,948	8.4	2,301,022	6.2
2000	6,665	40.7	1,055,737	7.5	240,526	13.2	340,630	10.5	2,001,714	7.1
1999	8,070	38.4	889,129	7.6	331,070	10.6	337,942	10.6	1,474,837	6.7
1998	15,700	42.1	751,538	7.0	126,968	13.3	326,235	10.4	1,277,127	5.7
1997	30,651	37.2	713,407	7.0	114,109	13.6	265,191	9.0	1,555,442	5.2
1996	4,685	35.8	816,678	6.2	316,253	13.9	173,616	9.9	1,161,814	5.1
1995	9,535	29.0	870,643	6.2	324,720	12.8	241,714	10.0	1,173,475	5.4
1994	17,210	33.2	1,112,262	6.3	91,207	24.7	364,233	9.2	1,519,347	5.0
1993	16,241	54.7	842,458	8.3	70,018	21.0	217,874	10.9	2,027,758	5.8
1992	10,521	28.3	992,747	9.7	54,890	41.5	226,789	13.0	2,346,495	8.5
1991	13,448	29.1	801,289	10.2	27,941	30.8	263,291	18.1	2,284,363	6.6
1990	11,975	29.2	929,210	12.0	12,504	45.5	252,632	14.7	3,481,179	8.2
1989	16,780	29.6	1,193,791	8.8	1,498	61.7	323,702	17.3	3,213,455	7.7
1988	39,833	72.5	897,527	23.5	16,764	36.0	280,766	18.5	1,786,336	11.6
1987	4,739	36.0	584,488	17.3	62,899	39.2	268,246	32.9	2,321,227	9.6
1986	368	100.0	472,694	15.4	48,258	48.0	124,027	23.9	2,121,061	18.4
1985	1,555	100.0	719,467	14.5	46,425	59.6	376,187	18.5	2,573,654	10.6
1984	6,557	100.0	1,137,932	24.0	-	-	252,290	30.5	3,480,359	12.9
1983	-	-	704,418	19.2	-	-	454,617	31.5	3,508,131	17.0
1982	11,272	41.0	432,806	17.3	16,880	68.2	234,874	41.0	1,628,351	12.1

NOTE: Directed trips are defined as trips that either targeted or caught one of the listed species.

Table III.5 Directed trips for major species in North Carolina by year (continued).

Year	Cobia		Dogfish Sharks		Dolphin		Florida Pompano		Flounder	
	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2019	187,494	20.5	175,593	43.8	173,192	13.5	688,384	17.8	1,830,553	8.0
2018	294,837	16.9	82,102	33.7	245,040	13.3	631,684	15.1	1,710,890	7.3
2017	302,607	18.6	64,930	32.6	197,686	15.0	713,133	17.9	2,107,301	6.9
2016	349,360	15.3	150,573	29.4	282,195	14.4	637,011	18.0	2,420,326	6.2
2015	326,752	15.8	178,189	39.6	313,062	13.8	782,738	17.6	2,536,854	7.3
2014	244,098	16.4	235,315	28.5	172,691	20.2	670,968	15.1	2,685,072	6.1
2013	204,560	18.0	257,897	36.9	191,701	16.6	1,011,337	12.9	2,623,195	5.7
2012	154,376	12.2	84,192	22.2	222,284	10.7	799,938	8.7	2,552,146	3.8
2011	148,917	15.4	225,852	18.3	235,775	13.1	941,780	10.5	2,519,959	4.5
2010	187,077	11.0	149,586	16.5	221,856	21.0	661,895	10.0	2,900,583	4.0
2009	164,221	18.0	59,569	39.7	350,015	13.6	571,454	11.5	2,577,363	5.9
2008	61,094	21.5	273,811	47.6	172,004	11.1	475,820	13.0	2,405,131	5.3
2007	118,012	16.8	105,601	29.9	290,229	10.9	443,393	14.6	2,221,405	6.1
2006	193,578	17.6	79,737	28.6	235,063	12.6	507,279	25.5	2,379,590	7.9
2005	124,143	18.0	159,265	56.1	272,904	12.2	489,171	19.1	1,911,063	7.4
2004	97,748	16.8	320,230	16.8	198,813	13.3	646,943	17.1	2,078,666	5.3
2003	99,879	15.9	44,501	38.1	140,721	11.8	480,255	17.4	1,729,028	5.3
2002	106,282	19.1	63,077	29.6	156,100	9.9	314,426	20.6	1,958,411	5.3
2001	74,602	19.6	97,601	22.5	123,279	10.1	348,006	17.3	1,861,792	4.8
2000	62,698	20.5	50,092	24.2	177,393	11.4	416,598	19.5	2,121,537	5.3
1999	49,309	23.2	29,834	35.8	122,660	10.4	196,917	14.0	1,158,885	5.6
1998	41,978	16.6	29,574	39.1	77,099	9.0	190,193	13.0	1,428,756	5.1
1997	77,757	15.8	20,978	26.2	137,464	8.4	171,752	11.8	1,426,854	4.7
1996	54,930	15.4	32,907	22.1	97,631	11.8	187,919	14.6	1,126,979	4.9
1995	100,572	18.0	50,972	23.3	135,226	7.7	227,195	13.7	1,230,301	5.1
1994	80,223	14.9	51,154	17.2	158,189	12.0	213,126	11.7	1,834,545	4.6
1993	45,510	21.6	39,754	24.4	126,273	12.1	408,236	13.3	1,745,979	5.4
1992	65,703	18.7	181,964	23.8	66,367	10.3	219,503	21.8	1,598,735	6.3
1991	80,530	19.7	153,145	20.1	103,066	12.4	348,669	12.7	1,604,122	6.6
1990	65,450	31.1	273,474	23.9	59,901	12.1	652,897	22.7	1,531,247	9.6
1989	51,379	31.1	137,176	22.9	89,052	14.9	364,538	24.9	1,033,473	10.0
1988	18,513	28.7	200,154	30.7	54,797	55.5	111,867	28.0	1,361,005	18.1
1987	42,484	26.7	246,125	43.6	50,311	21.7	343,262	30.2	1,090,007	16.0
1986	133,472	32.2	176,010	47.7	39,528	9.3	287,193	11.7	1,204,201	13.8
1985	104,499	48.7	145,998	31.1	43,556	51.9	349,226	28.4	1,799,421	13.7
1984	51,144	64.3	238,585	31.7	12,954	57.8	288,244	30.8	1,807,897	15.6
1983	9,464	100.0	57,410	37.0	20,697	47.1	145,619	67.8	1,678,640	15.1
1982	24,803	61.8	28,559	38.3	18,613	71.7	130,581	23.0	1,412,465	11.3

NOTE: Directed trips are defined as trips that either targeted or caught one of the listed species.

Table III.5 Directed trips for major species in North Carolina by year (continued).

Year	Great Barracuda		Greater Amberjack		Groupers		Grunts		Jacks	
	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2019	25,651	38.0	10,645	31.4	16,055	29.9	27,931	29.2	82,919	25.3
2018	21,941	32.2	18,103	36.4	6,475	28.1	20,808	41.2	74,771	21.9
2017	16,193	35.4	16,026	21.6	20,781	28.5	33,219	30.4	120,189	39.1
2016	10,188	35.2	35,587	27.9	37,721	29.1	47,810	44.4	217,866	18.4
2015	15,801	40.1	32,110	26.9	54,148	18.9	36,039	30.3	204,853	26.7
2014	5,961	39.4	11,311	34.8	37,348	28.0	16,808	37.7	118,156	27.9
2013	7,505	48.7	23,982	32.3	30,365	17.3	20,830	22.2	104,820	19.1
2012	7,125	24.9	18,101	21.2	64,985	19.4	29,517	19.6	137,269	21.6
2011	7,640	31.9	9,951	25.5	29,448	23.0	28,930	24.5	130,946	17.5
2010	10,976	23.4	24,796	41.4	44,583	17.2	24,308	24.6	55,491	26.8
2009	15,559	32.3	36,383	24.1	66,797	19.5	43,402	26.2	46,004	32.0
2008	21,258	27.7	34,312	27.5	70,685	16.1	23,929	25.2	156,608	35.5
2007	6,884	40.9	5,271	72.4	83,941	23.8	33,788	19.5	37,127	22.9
2006	6,711	34.8	10,889	50.1	40,651	21.2	32,203	27.1	22,983	33.7
2005	18,925	31.7	8,613	50.0	37,640	21.8	35,511	23.5	49,323	23.3
2004	10,565	40.7	7,860	34.8	33,386	23.2	30,995	25.0	14,489	31.1
2003	8,236	27.1	10,342	29.2	12,093	32.3	22,700	27.9	41,348	46.7
2002	12,916	21.2	11,290	24.1	12,477	37.3	15,726	26.3	41,353	24.1
2001	10,676	23.2	7,780	26.2	13,175	27.4	11,484	22.9	27,930	47.1
2000	3,586	37.9	11,144	40.8	10,723	46.6	12,243	46.3	29,057	55.1
1999	5,780	38.4	3,876	41.8	8,209	33.1	8,805	28.3	22,995	31.2
1998	7,301	28.9	6,087	33.0	13,725	33.8	13,161	31.5	15,315	33.6
1997	6,321	31.1	7,077	31.0	8,818	35.4	11,874	28.7	63,352	25.3
1996	11,842	31.3	15,233	20.3	14,768	35.8	16,037	28.2	14,258	37.8
1995	13,122	26.8	8,333	24.5	25,804	19.2	23,491	21.2	23,208	24.0
1994	10,705	21.0	15,226	28.3	49,759	21.6	70,363	14.8	13,088	24.3
1993	12,933	29.6	11,018	23.5	33,570	21.7	45,317	19.6	68,709	26.7
1992	7,817	28.6	8,064	25.4	18,182	23.3	31,180	18.5	36,892	40.7
1991	6,118	29.5	56,414	48.9	38,871	31.4	31,333	22.0	36,436	23.1
1990	12,276	36.2	12,660	27.4	60,090	32.3	49,428	43.9	78,219	54.8
1989	6,856	37.1	16,320	30.7	34,056	22.3	30,682	21.4	65,613	49.6
1988	14,908	68.1	7,635	30.3	19,914	21.5	22,183	19.8	73,835	80.4
1987	3,441	39.3	16,159	38.8	12,655	38.2	14,085	26.1	55,371	34.7
1986	268	54.1	24,415	38.8	1,651	81.6	350	100.0	231,679	27.6
1985	-	-	9,069	35.7	21,132	37.1	2,392	67.4	51,813	39.9
1984	8,197	100.0	3,073	100.0	25,412	40.6	67,464	30.0	64,734	55.1
1983	1,878	0.0	4,161	15.8	8,984	100.0	41,734	100.0	15,449	43.0
1982	-	-	412	100.0	12,343	64.7	521	100.0	23,770	49.7

NOTE: Directed trips are defined as trips that either targeted or caught one of the listed species.

Table III.5 Directed trips for major species in North Carolina by year (continued).

Year	King Mackerel		Kingfish		Pigfish		Porgies		Puffers	
	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2019	384,858	12.1	2,208,088	10.5	461,144	12.4	15,841	37.4	1,280,586	13.2
2018	417,690	14.9	1,660,341	12.1	492,024	10.9	5,225	42.8	490,330	28.4
2017	409,587	12.7	2,361,137	10.7	676,968	15.3	40,115	39.5	812,904	11.8
2016	271,754	14.3	2,741,476	12.0	848,240	10.8	37,693	55.1	1,427,536	14.8
2015	390,806	11.3	2,842,692	12.1	985,857	9.8	34,494	37.6	1,770,078	19.5
2014	375,929	13.0	2,538,697	9.8	902,261	10.3	16,996	48.9	395,524	16.8
2013	320,144	12.7	2,910,094	6.0	719,546	10.9	15,630	25.5	576,049	11.3
2012	325,194	10.4	2,443,663	5.1	743,921	6.4	25,548	20.3	1,261,061	7.0
2011	259,299	12.8	2,005,965	6.2	864,320	8.4	10,658	34.5	872,144	10.3
2010	287,082	9.7	2,614,698	5.8	728,441	7.5	11,989	30.4	839,916	13.2
2009	501,252	10.4	2,421,670	7.5	626,307	11.7	23,759	28.8	360,375	14.6
2008	340,646	10.7	1,742,848	8.5	700,737	16.2	26,882	26.9	562,782	15.8
2007	475,140	9.2	1,791,749	8.1	591,424	14.4	21,491	23.2	317,421	35.4
2006	386,012	12.5	1,605,005	9.4	443,494	15.0	11,129	37.0	287,797	23.7
2005	464,675	8.7	1,260,798	11.0	632,464	23.4	27,794	24.9	339,008	26.2
2004	395,324	10.9	1,513,388	9.6	738,709	12.5	112,539	38.3	413,765	13.3
2003	283,193	8.3	1,044,531	8.6	834,218	10.5	11,038	31.3	507,955	18.2
2002	353,673	12.5	843,478	10.9	596,590	12.1	8,557	28.3	538,354	14.9
2001	317,006	9.4	1,046,464	8.5	557,787	10.6	11,777	26.2	543,238	9.9
2000	296,502	11.7	1,310,049	9.1	651,759	9.8	29,190	45.1	513,484	10.3
1999	190,705	11.5	719,508	8.5	651,697	9.6	7,823	38.1	418,583	12.0
1998	195,413	14.7	653,069	8.5	645,435	8.6	12,108	32.7	178,079	13.2
1997	256,783	8.4	622,487	7.1	730,699	7.4	19,903	23.2	298,694	12.1
1996	223,974	10.2	699,179	8.4	738,252	7.4	12,181	30.9	384,447	12.6
1995	356,003	7.8	783,545	7.2	588,935	8.2	22,499	19.7	225,761	12.4
1994	385,404	8.7	1,027,407	7.9	591,972	8.7	70,481	19.9	375,140	10.0
1993	362,612	8.5	871,255	10.0	494,231	9.8	33,920	21.3	439,314	14.3
1992	355,767	8.0	987,809	16.3	581,256	12.5	30,629	19.0	1,053,038	14.2
1991	413,152	7.6	1,073,637	11.2	444,929	14.3	44,751	18.0	353,515	13.8
1990	418,747	11.9	1,008,142	13.8	487,082	20.1	58,652	37.0	498,454	19.1
1989	394,667	11.6	558,414	14.8	666,410	12.6	38,329	26.0	500,525	16.5
1988	248,979	14.8	1,109,114	17.3	659,073	15.6	32,995	20.0	422,304	23.5
1987	371,986	14.2	688,396	18.4	643,854	23.7	20,878	23.0	227,546	40.4
1986	333,622	31.1	721,770	40.5	297,118	24.3	9,137	61.8	403,119	43.9
1985	377,973	24.5	419,946	17.3	460,697	20.2	22,099	67.7	140,717	35.9
1984	231,800	23.7	542,411	20.8	581,449	30.8	78,651	28.2	118,171	50.4
1983	291,067	24.3	476,653	25.8	589,457	23.5	138,433	53.2	88,165	40.9
1982	202,767	15.9	563,925	19.4	363,663	43.2	66,862	62.0	237,109	56.5

NOTE: Directed trips are defined as trips that either targeted or caught one of the listed species.

Table III.5 Directed trips for major species in North Carolina by year (continued).

Year	Red Drum		Sheepshead		Snappers		Spanish Mackerel		Spot	
	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2019	2,687,752	9.9	311,630	14.3	23,442	30.9	1,320,690	11.1	1,062,156	10.1
2018	3,478,377	13.8	350,785	14.2	6,474	36.4	1,072,569	10	948,789	10.1
2017	3,675,064	12.6	486,805	16.0	39,089	39.1	1,065,266	13.6	1,333,257	12.6
2016	3,693,885	11.9	266,617	17.9	29,989	58.1	984,307	10.2	892,716	11.0
2015	2,762,521	18.2	321,035	14.6	21,563	45.0	915,635	8.2	1,788,190	10.7
2014	2,995,433	9.0	255,414	17.0	15,585	43.3	1,073,559	8.5	2,125,494	8.6
2013	2,542,714	6.4	371,139	10.5	6,860	31.8	781,315	7.8	2,385,900	7.1
2012	2,557,094	4.9	405,546	8.8	22,615	22.7	832,918	6.3	1,636,385	5.9
2011	1,089,325	6.7	308,075	12.5	9,117	33.6	875,873	8.4	2,343,254	7.3
2010	1,755,179	7.0	285,820	12.9	9,729	24.8	858,946	8.0	1,978,044	7.0
2009	1,702,448	15.6	317,796	13.7	21,756	28.7	953,259	10.7	2,334,320	7.6
2008	1,491,162	14.2	281,738	13.7	22,634	31.7	721,131	7.7	1,860,288	8.5
2007	1,053,326	8.7	340,505	19.9	13,744	27.5	583,273	9.2	1,920,093	10.6
2006	916,020	8.9	215,691	23.6	5,630	41.2	592,208	11.1	3,190,948	11.5
2005	706,486	8.7	147,013	19.2	18,910	28.6	562,428	11.9	2,504,785	12.4
2004	522,126	9.6	160,973	25.8	18,795	29.7	693,660	16.7	2,308,073	8.3
2003	476,674	9.2	210,037	11.8	6,257	44.5	557,305	11.4	2,096,846	8.6
2002	902,697	8.4	174,010	13.1	9,934	34.3	652,877	11.1	1,575,172	10.9
2001	536,851	8.9	169,511	13.7	10,556	33.4	573,249	12.4	1,873,118	9.9
2000	711,051	7.6	243,234	15.2	4,230	37.7	668,735	12.5	1,565,541	8.4
1999	662,625	7.7	176,898	12.7	7,356	34.1	490,881	10.7	1,418,188	8.2
1998	521,028	8.4	122,528	15.9	3,772	53.5	361,670	10.9	1,551,639	8.5
1997	314,360	8.4	112,257	16.6	14,520	27.5	553,133	7.9	1,155,445	6.7
1996	364,726	9.9	66,671	15.2	15,439	34.8	398,041	8.6	1,621,884	6.6
1995	674,269	7.3	112,359	12.7	23,673	19.7	390,306	7.8	1,428,803	6.3
1994	621,918	8.2	126,838	14.4	31,616	22.0	569,538	7.3	1,912,005	6.7
1993	906,950	7.8	164,875	17.7	17,726	25.8	624,360	8.6	1,687,428	7.4
1992	716,307	12.8	139,232	21.6	17,846	19.8	750,273	8.9	1,766,448	10.8
1991	661,450	12.2	102,231	14.7	17,883	22.9	718,947	6.3	2,128,269	8.3
1990	538,581	19.1	94,796	19.0	27,746	46.2	702,445	10.9	1,856,343	10.3
1989	915,055	13.7	104,468	21.6	27,194	33.5	784,182	14.5	1,709,410	8.9
1988	409,391	35.0	66,494	23.2	15,648	24.6	301,053	10.6	1,582,830	16.8
1987	681,645	23.9	53,816	36.4	14,843	34.4	360,764	13.0	1,250,216	13.6
1986	216,931	18.0	46,832	38.3	4,272	84.9	601,408	33.2	1,207,328	12.2
1985	398,397	28.1	13,672	76.6	29,306	78.1	151,263	28.2	2,320,914	14.2
1984	513,880	23.2	52,395	42.4	41,603	20.8	153,734	37.0	1,851,069	15.5
1983	775,248	18.4	8,770	75.9	53,003	85.8	39,648	81.4	1,893,659	12.0
1982	181,019	34.3	42,268	40.5	-	-	146,127	26.6	1,393,111	11.8

NOTE: Directed trips are defined as trips that either targeted or caught one of the listed species.

Table III.5 Directed trips for major species in North Carolina by year (continued).

Year	Spotted Seatrout		Striped Bass ¹		Wahoo		Weakfish		Yellowfin Tuna	
	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2019	2,867,512	6.5	28,365	25.7	43,329	19.4	112,100	18.0	48,751	23.3
2018	1,606,853	10.9	28,388	41.7	47,725	20.3	97,928	23.7	54,138	27.0
2017	2,851,053	11.9	32,116	35.9	74,721	19.3	147,138	16.8	89,469	17.0
2016	2,322,627	7.5	158,610	45.7	83,613	22.6	275,045	15.6	120,076	20.1
2015	2,537,677	7.1	4,586	93.9	99,224	24.3	449,929	21.8	40,563	25.3
2014	2,154,879	8.1	134,105	81.0	70,998	26.2	226,756	15.2	42,991	22.2
2013	2,233,881	6.6	50,006	40.7	47,999	24.2	164,120	13.5	45,804	26.7
2012	2,365,291	5.2	126,230	28.3	62,680	15.0	198,691	12.1	52,846	20.0
2011	1,689,106	5.7	228,198	18.6	51,715	21.4	122,784	14.5	45,558	28.5
2010	1,716,486	7.3	180,151	19.9	43,944	18.0	231,359	12.9	38,146	27.3
2009	1,873,557	8.5	316,463	21.9	51,309	24.0	187,203	15.7	63,104	48.7
2008	1,444,238	11.2	604,391	19.9	50,932	18.2	151,787	15.6	32,264	23.0
2007	1,116,323	8.8	736,232	18.2	56,232	19.9	211,544	13.9	155,576	15.5
2006	1,077,306	9.1	846,769	24.6	64,976	25.9	385,571	14.9	163,653	15.3
2005	967,636	13.3	540,379	17.7	58,120	25.8	297,007	12.0	154,860	17.3
2004	537,440	8.8	884,229	12.5	40,833	20.2	368,146	12.6	138,284	17.4
2003	400,109	12.0	185,658	13.6	35,915	27.1	246,707	12.3	105,434	13.0
2002	548,358	17.2	351,816	13.5	53,204	18.2	249,751	13.4	115,054	26.6
2001	374,519	11.4	328,790	11.5	32,951	19.2	387,690	15.5	106,870	10.8
2000	534,790	13.5	320,439	12.7	55,387	20.5	290,012	12.5	97,501	10.2
1999	615,015	9.9	201,568	10.5	36,787	17.0	323,706	10.4	100,951	8.1
1998	461,677	10.0	418,479	8.1	19,552	12.2	325,912	13.2	57,984	7.4
1997	545,032	10.4	401,702	8.6	46,756	15.4	284,957	9.6	105,601	12.8
1996	530,593	10.7	287,069	10.3	41,899	15.9	215,012	10.3	123,884	14.3
1995	760,843	7.8	135,019	13.6	46,288	11.3	199,328	11.1	67,313	10.2
1994	728,875	9.6	100,767	14.4	35,247	13.5	297,732	10.6	76,311	10.4
1993	676,541	10.5	41,223	30.1	22,211	16.9	247,237	14.2	44,841	9.7
1992	874,396	11.0	18,165	46.4	21,221	18.5	156,607	18.1	36,731	16.0
1991	838,924	9.6	74,635	40.4	16,358	17.5	193,545	20.1	38,878	22.8
1990	638,272	10.1	-	-	17,041	18.7	118,139	18.2	14,489	19.7
1989	979,095	14.0	-	-	20,862	18.9	214,618	17.0	64,830	22.0
1988	489,668	16.4	1,265	100.0	5,366	22.7	238,449	27.0	38,024	41.3
1987	1,078,367	18.8	-	-	14,075	26.9	417,768	31.1	48,460	26.4
1986	709,774	11.3	-	-	35,658	26.5	538,707	30.1	82,895	21.9
1985	728,712	20.4	-	-	6,322	97.2	207,516	29.5	24,825	53.8
1984	584,669	24.6	284	0.0	1,637	100.0	321,962	21.3	1,011	100.0
1983	512,877	24.7	-	-	11,083	64.2	172,911	34.6	11,435	45.0
1982	444,128	23.6	-	-	577	100.0	87,418	33.4	-	-

¹ Atlantic Ocean Striped Bass only.

NOTE: Directed trips are defined as trips that either targeted or caught one of the listed species.

Table III.6 Atlantic Bonito recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	35,874	66.6	122,931	48.6	17.1	3.4	24,033	66.1
2018	12,576	42.5	42,879	49.7	18.1	3.4	11,745	66.4
2017	1,999	45.6	9,578	53.0	18.8	4.8	40,094	75.6
2016	3,411	64.7	22,127	60.3	21.5	6.5	10,196	45.2
2015	16,973	44.8	102,408	42.8	21.6	6.0	1,325	60.8
2014	18,380	49.3	91,228	53.6	20.1	5.0	59,925	62.7
2013	19,182	59.9	99,252	55.4	20.4	5.2	4,609	41.3
2012	6,913	37.1	95,947	49.3	27.1	13.9	7,858	35.6
2011	21,235	73.1	287,458	66.4	27.1	13.5	28,618	42.1
2010	447	42.4	8,019	47.1	30.2	17.9	16,583	41.6
2009	1,379	71.8	13,799	85.4	24.4	10.0	2,561	92.2
2008	5,230	56.8	39,093	61.8	22.2	7.5	23,411	61.1
2007	7,685	48.1	34,693	46.3	20.4	4.5	4,523	41.8
2006	1,037	102.4	4,457	102.4	21.0	4.3	2,755	51.4
2005	2,102	76.6	9,388	73.8	21.5	4.5	42,363	98.6
2004	10,273	56.6	48,251	57.3	21.6	4.7	19,082	39.3
2003	2,275	58.8	6,685	51.2	16.6	2.9	12,968	50.9
2002	28,728	64.0	97,115	66.1	19.3	3.4	30,165	65.7
2001	7,722	48.2	23,602	50.7	17.4	3.1	5,001	56.1
2000	13,617	93.4	69,579	89.9	22.2	5.1	9,257	58.4

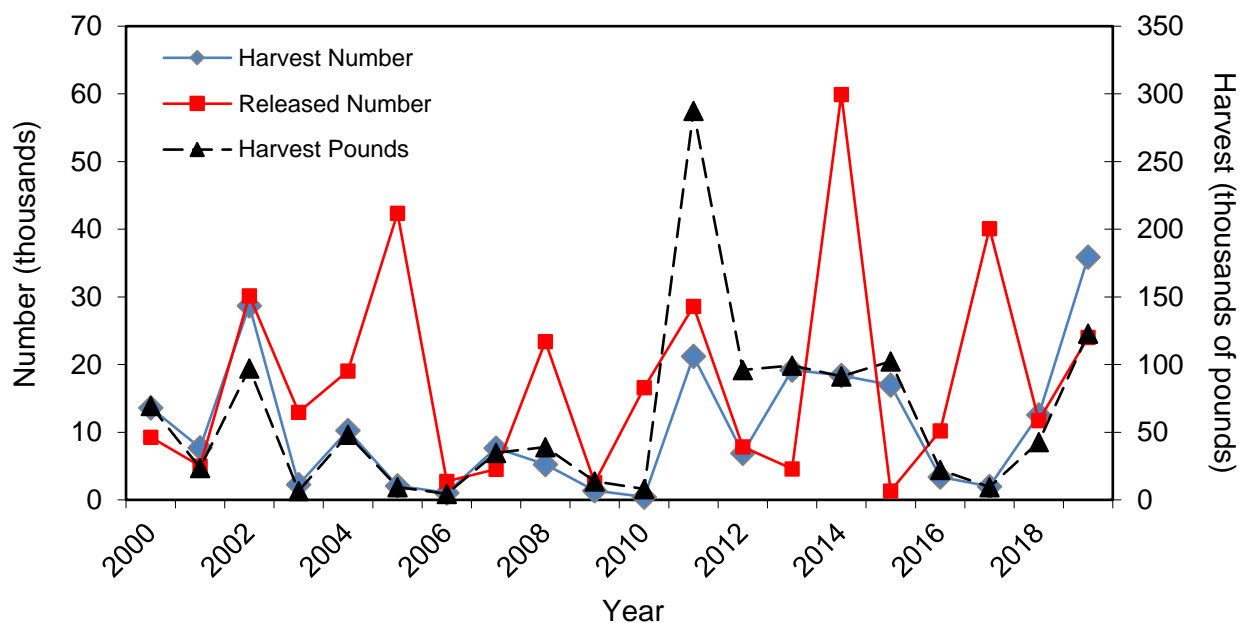


Figure III.1 Atlantic Bonito recreational catch in North Carolina by year.

Table III.7 Atlantic Bonito recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	35,874	66.6	122,931	48.6	17.1	3.4	24,033	66.1
Connecticut	12,113	54.2	39,272	55.1	18.4	3.2	21,662	56.2
Delaware	124	74.9	1,075	74.9	25.2	8.6	15	109.8
Georgia	1,148	72.9	3,585	89.3	14.7	3.1	249	90.9
Maryland	528	81.6	2,183	90.3	19.1	4.1	5,009	44.9
Massachusetts	68,356	20.1	101,521	25.9	13.0	1.5	23,917	34.8
New Jersey	92,962	41.4	228,772	34.6	16.2	2.5	8,388	58.5
New York	7,453	57.2	15,811	53.0	15.8	2.1	11,999	62.0
Rhode Island	32,643	38.7	102,211	36.5	18.1	3.1	34,740	35.7
South Carolina	1,509	33.6	2,099	31.0	13.6	1.4	3,689	95.3

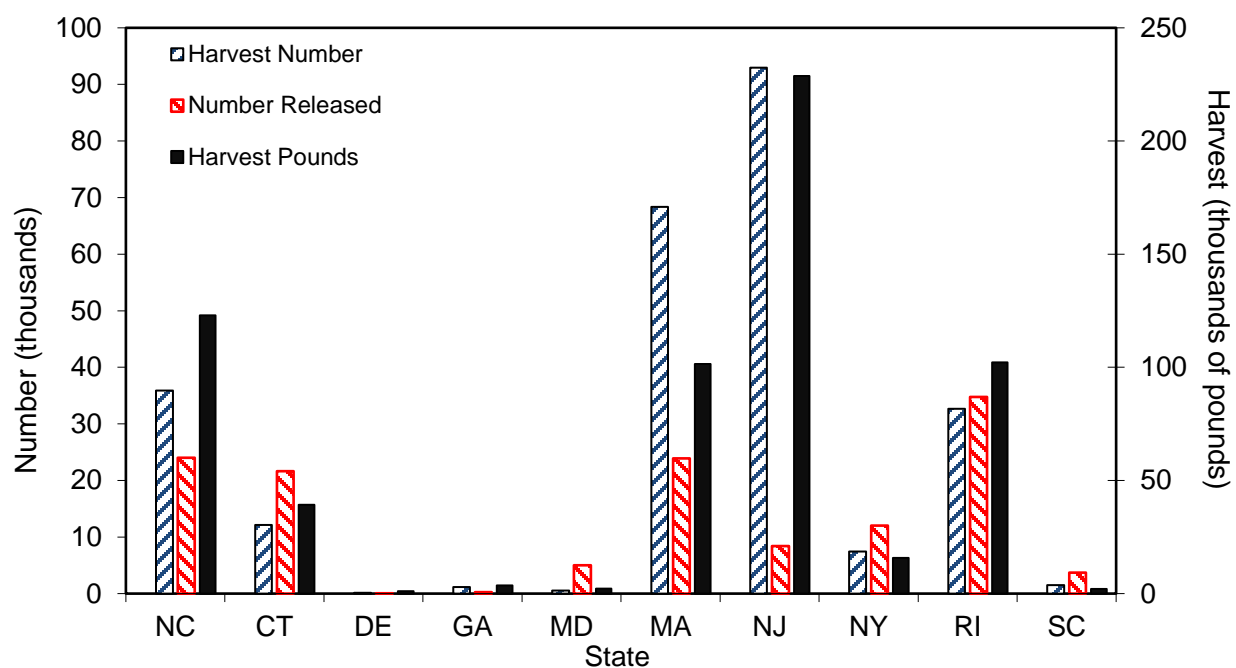


Figure III.2 Atlantic Bonito recreational catch by state, 2019.

Table III.8 Atlantic Croaker recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	651,268	20.7	224,337	22.8	9.0	0.3	3,634,211	11.5
2018	472,917	16.0	164,644	16.1	8.9	0.3	4,311,368	13.2
2017	666,930	16.7	237,160	16.9	9.0	0.4	4,631,445	13.0
2016	1,109,570	16.2	443,728	16.8	9.3	0.4	7,254,382	14.9
2015	1,437,019	14.7	557,735	16.3	9.2	0.4	9,632,560	11.1
2014	1,935,961	21.6	758,751	16.9	9.1	0.4	10,347,332	13.8
2013	1,300,804	15.7	453,881	15.8	9.1	0.3	6,729,556	10.5
2012	848,495	12.1	307,338	12.6	9.2	0.4	3,878,710	8.7
2011	873,659	15.2	360,390	15.6	9.6	0.4	7,005,152	13.6
2010	1,280,446	16.0	638,817	15.7	9.8	0.5	4,571,287	9.8
2009	958,128	16.1	359,703	16.2	8.9	0.4	5,623,278	11.1
2008	678,638	14.8	275,052	15.4	9.5	0.4	3,274,873	11.6
2007	1,058,663	20.7	336,486	21.5	8.4	0.3	3,933,603	12.4
2006	1,376,403	23.9	498,741	23.3	8.8	0.4	6,381,434	11.9
2005	672,437	22.4	323,380	22.0	9.6	0.5	3,038,472	12.4
2004	1,218,206	26.1	683,113	24.1	10.1	0.6	3,407,280	14.0
2003	1,127,298	18.8	708,487	23.2	10.4	0.6	2,765,303	12.5
2002	1,265,031	18.8	651,611	17.3	9.7	0.5	2,218,039	23.8
2001	1,285,029	15.7	647,119	15.1	10.0	0.5	2,387,491	11.8
2000	860,246	14.5	394,037	14.8	9.6	0.5	3,475,554	12.5

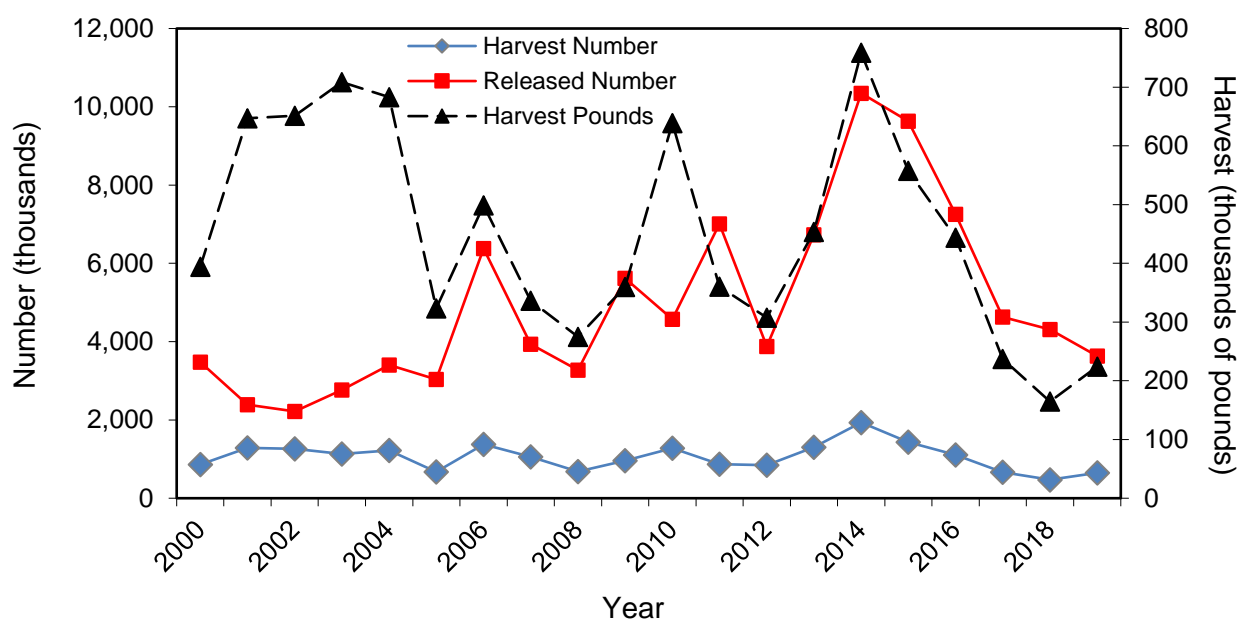


Figure III.3 Atlantic Croaker recreational catch in North Carolina by year.

Table III.9 Atlantic Croaker recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	651,268	20.7	224,337	22.8	9.0	0.3	3,634,211	11.5
Delaware	53,048	19.2	23,973	25.2	9.8	0.5	101,526	26.0
Florida	801,751	59.0	358,941	57.7	10.1	0.4	2,259,705	41.2
Georgia	332,073	33.9	97,791	32.1	8.5	0.3	1,893,287	17.4
Maryland	69,771	74.7	38,895	71.9	10.7	0.6	1,243,785	26.4
New Jersey	3,031	105.7	973	105.7	9.0	0.3	33,333	59.2
South Carolina	595,044	24.1	133,776	21.6	7.6	0.2	3,778,170	27.2
Virginia	3,055,510	16.0	995,491	16.2	9.0	0.3	6,642,685	18.9

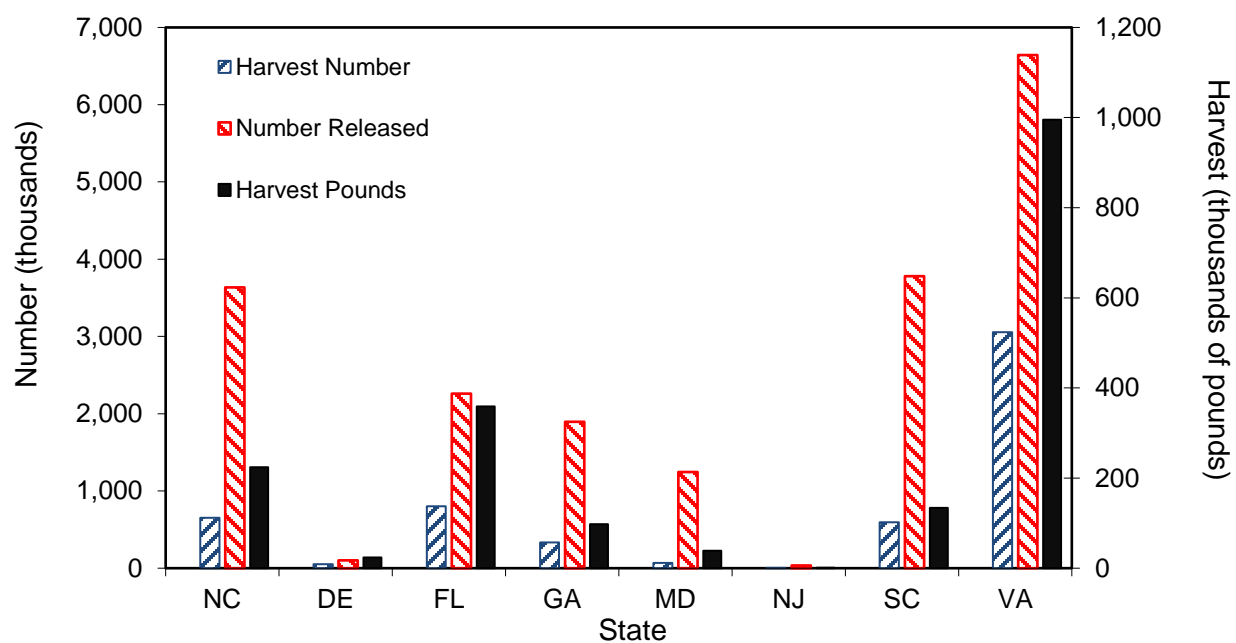


Figure III.4 Atlantic Croaker recreational catch by state, 2019.

Table III.10 Black Drum recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	165,401	19.9	404,452	20.1	15.7	2.6	756,749	16.6
2018	134,624	27.2	428,273	28.3	16.5	3.2	1,450,855	21.6
2017	355,544	47.8	856,081	46.9	16.1	2.4	2,336,352	22.1
2016	276,126	20.1	780,876	18.6	16.9	2.8	1,791,758	21.9
2015	109,307	38.5	230,834	32.9	15.0	2.1	1,964,749	27.2
2014	1,511,995	17.6	2,709,269	25.8	12.9	1.8	497,334	27.7
2013	556,482	20.9	879,401	20.4	12.7	1.6	397,155	18.7
2012	1,259,216	20.9	823,423	18.3	10.0	0.7	711,755	23.1
2011	650,010	24.8	812,699	23.6	11.3	1.3	427,577	27.4
2010	449,901	26.5	421,788	21.2	10.6	0.9	411,358	28.3
2009	925,963	22.7	1,232,589	27.9	12.4	1.3	548,931	25.2
2008	876,178	24.9	697,822	19.7	10.7	0.8	832,132	25.6
2007	276,257	22.5	431,212	25.6	13.4	1.6	265,369	29.0
2006	465,076	29.4	509,328	30.8	10.5	1.1	376,363	25.6
2005	296,531	21.1	566,484	20.5	13.5	1.9	255,753	44.2
2004	1,265,995	42.6	1,926,671	32.3	11.1	1.5	481,742	21.2
2003	846,855	18.5	1,791,703	20.2	14.1	2.1	215,810	34.5
2002	400,983	29.5	446,202	24.8	11.2	1.1	325,234	32.2
2001	293,983	30.1	685,687	35.6	15.2	2.3	112,470	28.2
2000	374,245	16.7	561,678	18.4	12.9	1.5	267,723	25.4

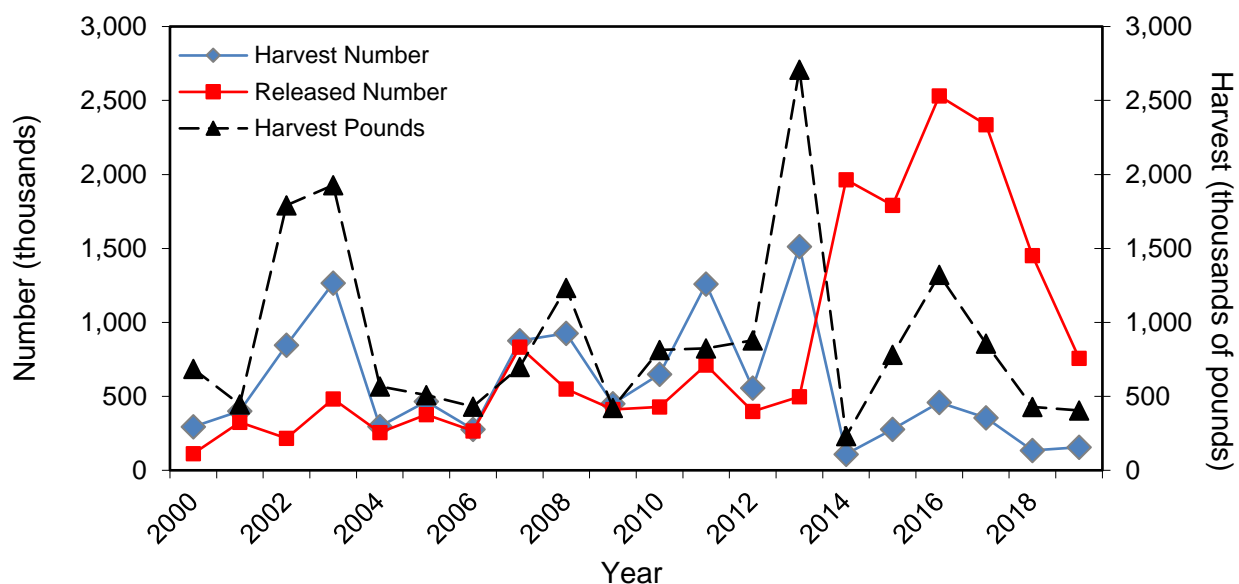


Figure III.5 Black Drum recreational catch in North Carolina by year.

Table III.11 Black Drum recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	156,401	19.9	404,452	20.1	15.7	2.6	756,749	16.6
Delaware	931	68.9	8,117	63.7	24.4	8.7	29,878	83.6
Florida	755,638	16.6	2,919,274	17.6	17.3	3.0	1,333,745	25.6
Georgia	157,584	32.1	321,406	25.5	14.8	2.0	179,872	41.9
Maryland	4,897	25.9	59,912	25.9	23.2	12.2	6,346	26.8
New Jersey	7,506	56.1	172,735	56.8	32.0	23.0	1,953	68.5
South Carolina	349,053	25.7	910,327	24.4	15.9	2.6	1,008,506	17.1
Virginia	6,600	40.4	101,535	57.3	26.1	15.4	152,074	46.5

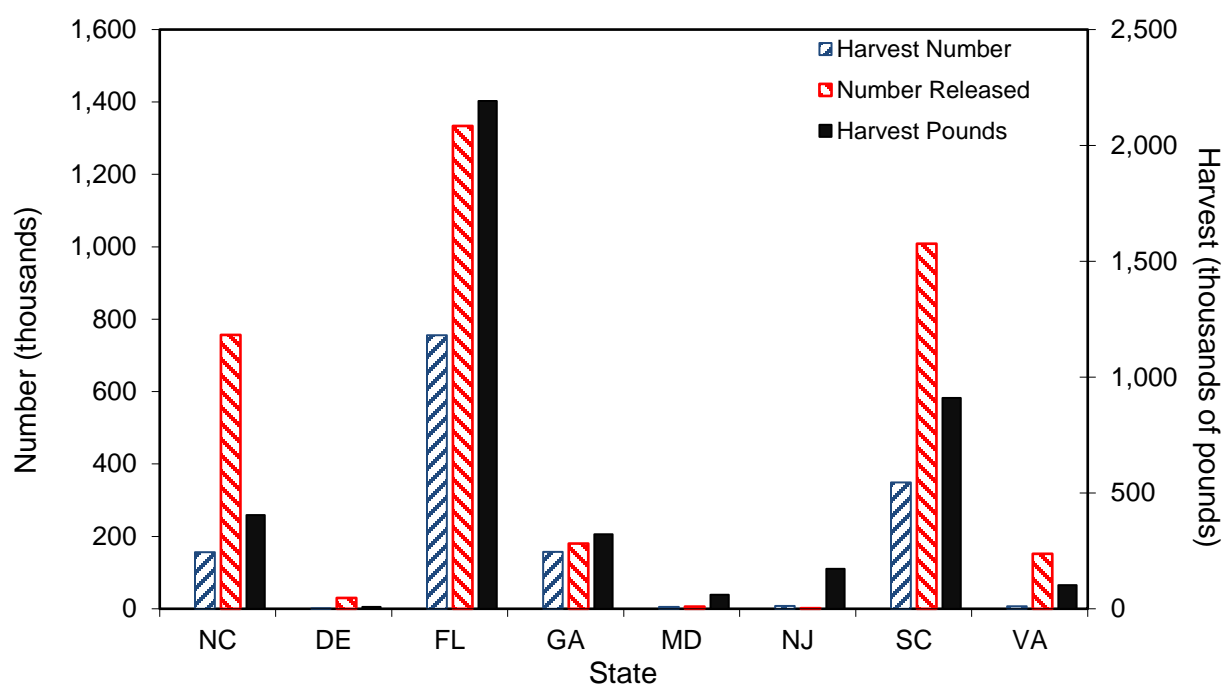


Figure III.6 Black Drum recreational catch by state, 2019.

Table III.12 Black Sea Bass recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	151,999	50.2	220,377	51.6	14.3	1.4	2,802,990	18.0
2018	86,153	32.9	116,825	32.1	13.6	1.4	2,223,800	17.0
2017	316,925	29.3	539,910	30.9	14.7	1.7	6,190,501	13.5
2016	194,512	31.4	302,925	31.9	14.5	1.6	5,536,050	13.7
2015	319,653	32.9	455,100	32.5	14.0	1.4	5,036,500	18.8
2014	332,594	32.2	563,662	31.6	14.7	1.7	5,022,908	15.6
2013	89,682	20.7	123,413	21.3	13.9	1.4	3,041,126	9.8
2012	134,124	18.2	228,090	19.8	14.4	1.7	4,650,495	8.4
2011	179,892	32.4	262,904	33.5	14.0	1.5	2,569,950	9.1
2010	184,479	26.1	231,236	26.5	13.3	1.3	2,223,822	16.9
2009	152,614	30.0	167,165	28.0	13.1	1.1	1,681,278	14.5
2008	91,097	30.8	119,530	30.4	13.6	1.3	1,056,171	14.0
2007	153,597	37.9	302,485	31.8	15.4	2.0	1,672,116	12.3
2006	190,962	27.6	201,508	30.4	12.3	1.1	2,162,091	11.9
2005	346,733	28.2	453,071	41.7	13.2	1.3	2,142,304	14.4
2004	547,651	33.1	509,890	30.4	11.7	0.9	1,942,630	15.7
2003	327,249	22.1	320,436	21.4	11.9	1.0	931,453	15.7
2002	153,335	22.6	202,496	21.2	13.1	1.3	1,023,629	13.5
2001	362,563	18.6	410,649	19.8	12.3	1.1	1,498,961	12.6
2000	327,651	30.9	386,856	39.6	12.8	1.2	1,652,835	19.8

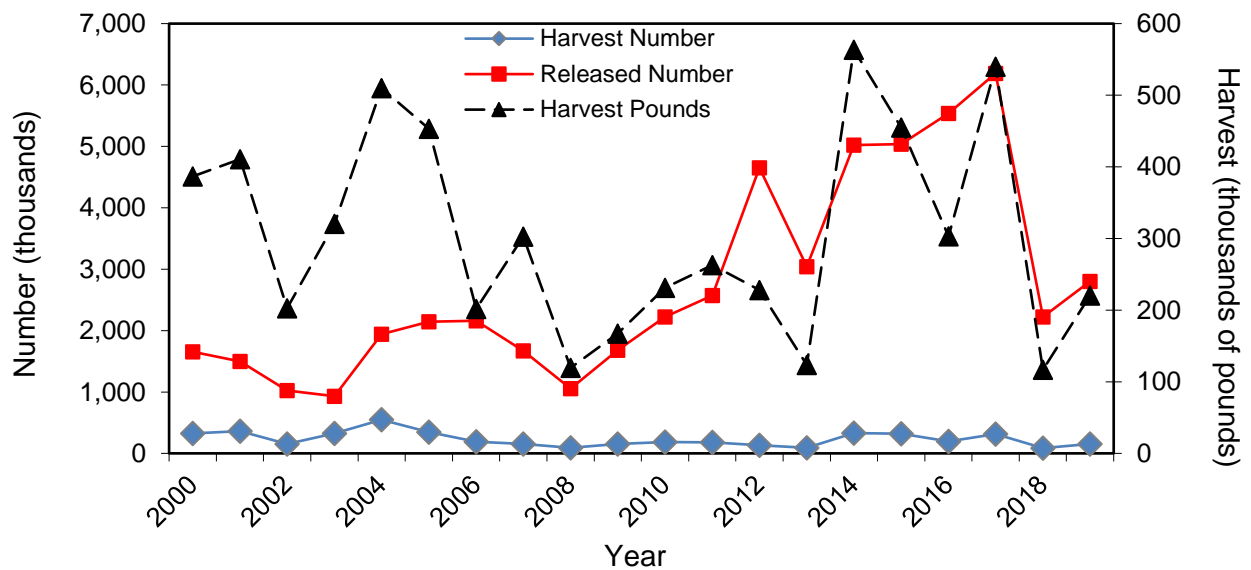


Figure III.7 Black Sea Bass recreational catch in North Carolina by year.

Table III.13 Black Sea Bass recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	151,999	50.2	220,377	51.6	14.3	1.4	2,802,990	18.0
Connecticut	515,601	17.9	1,180,400	18.4	17.1	2.3	2,624,762	15.2
Delaware	43,435	22.3	61,974	25.4	14.3	1.4	378,301	22.0
Florida	144,562	35.2	173,489	34.0	11.4	0.8	1,665,845	17.2
Georgia	44,648	42.9	51,684	45.2	13.0	1.2	1,181,069	40.1
Florida	-	-	-	-	-	-	1,684	98.3
Maryland	129,432	27.8	156,986	26.5	13.5	1.2	1,635,747	41.9
Massachusetts	526,594	20.0	1,361,110	21.5	18.1	2.6	2,728,800	18.8
New Jersey	831,241	17.1	1,117,658	18.6	13.9	1.3	5,352,818	14.8
New York	1,577,042	14.5	3,126,473	15.3	16.6	2.0	9,725,431	12.4
Rhode Island	517,033	15.7	1,225,058	16.0	17.8	2.4	3,436,223	17.0
South Carolina	76,019	24.2	105,633	25.3	13.6	1.4	2,246,856	15.2
Virginia	230,844	40.3	371,523	38.6	14.5	1.6	1,903,352	19.0

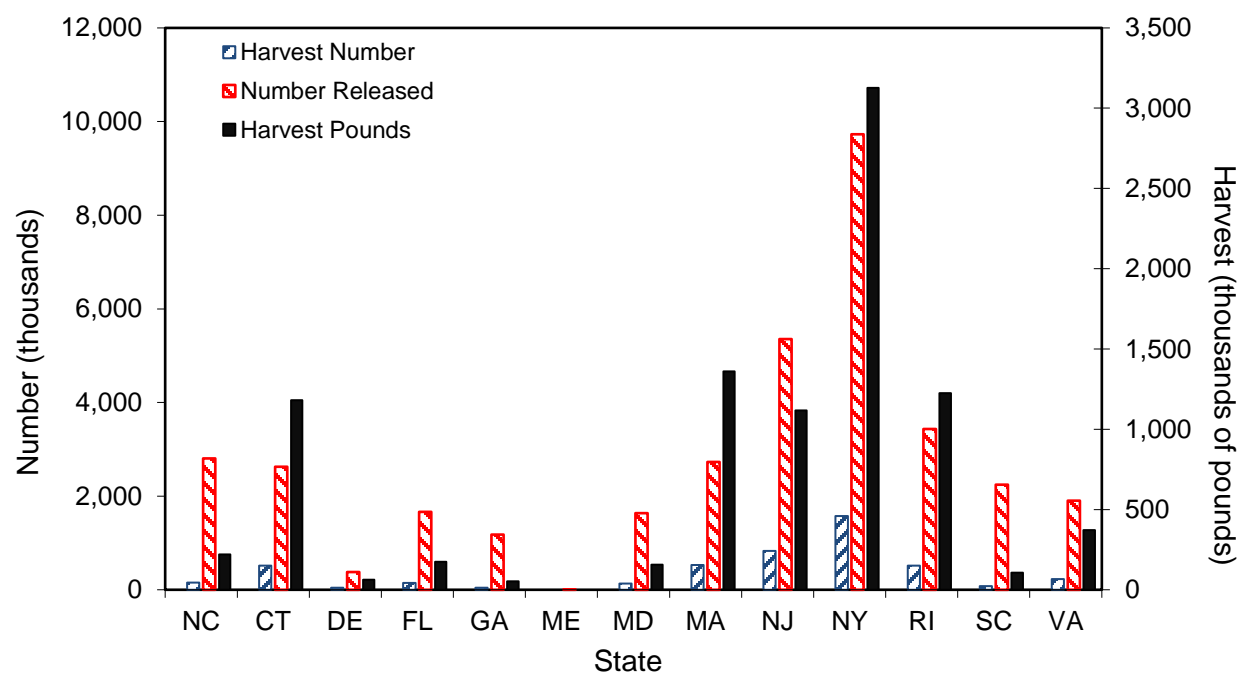


Figure III.8 Black Sea Bass recreational catch by state, 2019.

Table III.14 Bluefish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	2,752,589	23.0	3,011,480	22.4	11.3	0.8	7,162,431	22.0
2018	3,304,587	13.1	2,630,685	12.3	11.3	0.8	7,912,210	16.2
2017	3,173,218	18.3	3,634,502	28.0	12.3	1.1	8,255,510	29.8
2016	4,489,223	17.3	3,356,049	17.1	11.2	0.7	6,802,960	19.3
2015	4,123,461	14.5	3,754,577	14.4	11.9	0.9	6,356,252	15.4
2014	4,418,858	13.3	3,764,005	13.5	12.0	0.9	5,862,762	12.8
2013	4,287,526	11.8	3,517,233	11.8	11.4	0.8	7,050,725	11.4
2012	2,684,392	10.0	2,872,922	11.0	12.5	1.1	3,268,032	8.7
2011	3,613,883	12.0	3,158,287	14.6	11.7	0.9	7,150,476	10.9
2010	3,691,868	10.7	3,185,652	12.4	11.6	0.9	7,419,644	12.3
2009	3,190,313	13.2	3,566,768	15.1	12.7	1.1	6,447,822	12.5
2008	2,855,199	13.9	2,385,349	14.0	12.2	0.8	5,146,870	9.8
2007	3,749,514	13.7	3,616,359	12.5	12.3	1.0	6,740,155	12.4
2006	2,842,593	17.3	2,651,326	21.6	12.3	0.9	5,213,436	13.0
2005	3,004,921	14.6	2,938,814	16.6	12.4	1.0	4,417,822	11.2
2004	2,825,382	12.9	2,773,518	12.9	12.8	1.0	3,781,031	10.9
2003	2,161,780	11.2	1,843,018	11.3	12.4	0.9	3,432,547	12.9
2002	2,484,516	12.7	2,327,789	12.1	12.5	0.9	4,357,535	11.8
2001	3,410,135	11.3	3,048,743	11.3	12.7	0.9	6,756,435	13.9
2000	2,325,583	10.7	1,721,367	10.7	12.0	0.7	5,231,507	24.8

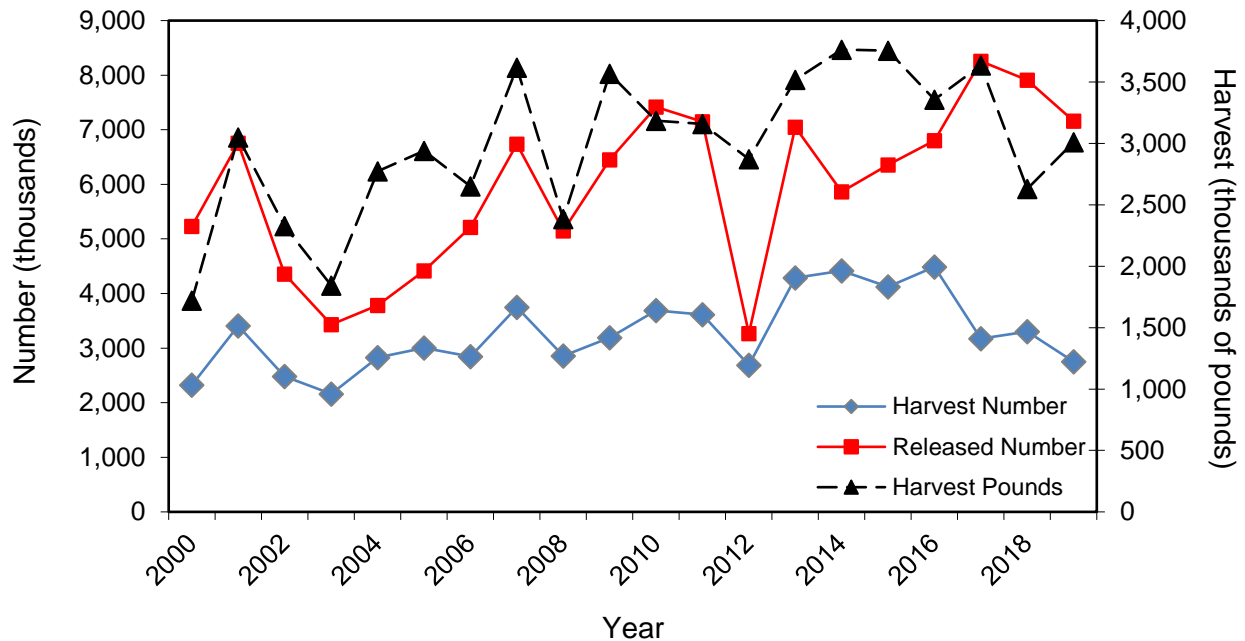


Figure III.9 Bluefish recreational catch in North Carolina by year.

Table III.15 Bluefish recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	2,752,589	23.0	3,011,480	22.4	13.0	1.1	7,162,431	22.0
Connecticut	670,401	45.1	1,161,103	38.3	14.6	1.7	819,694	23.7
Delaware	151,469	33.8	415,267	47.0	16.9	2.7	430,371	35.8
Florida	2,366,165	22.7	2,874,785	23.0	14.4	1.3	3,920,450	20.2
Georgia	26,364	31.1	21,886	36.8	11.6	0.8	247,036	23.7
Maryland	111,769	24.7	154,451	23.8	13.2	1.4	226,968	29.4
Massachusetts	265,628	36.6	719,130	30.2	17.5	2.7	471,132	19.5
New Jersey	741,722	17.3	1,660,208	20.8	15.5	2.2	2,568,926	20.7
New York	3,037,380	19.5	3,521,431	18.1	10.9	1.2	3,339,052	21.5
Rhode Island	379,715	41.0	931,991	28.5	15.0	2.5	611,878	21.8
South Carolina	877,372	24.2	502,699	29.5	10.7	0.6	5,571,425	17.6
Virginia	756,717	31.6	581,458	27.4	11.4	0.8	1,125,283	35.6

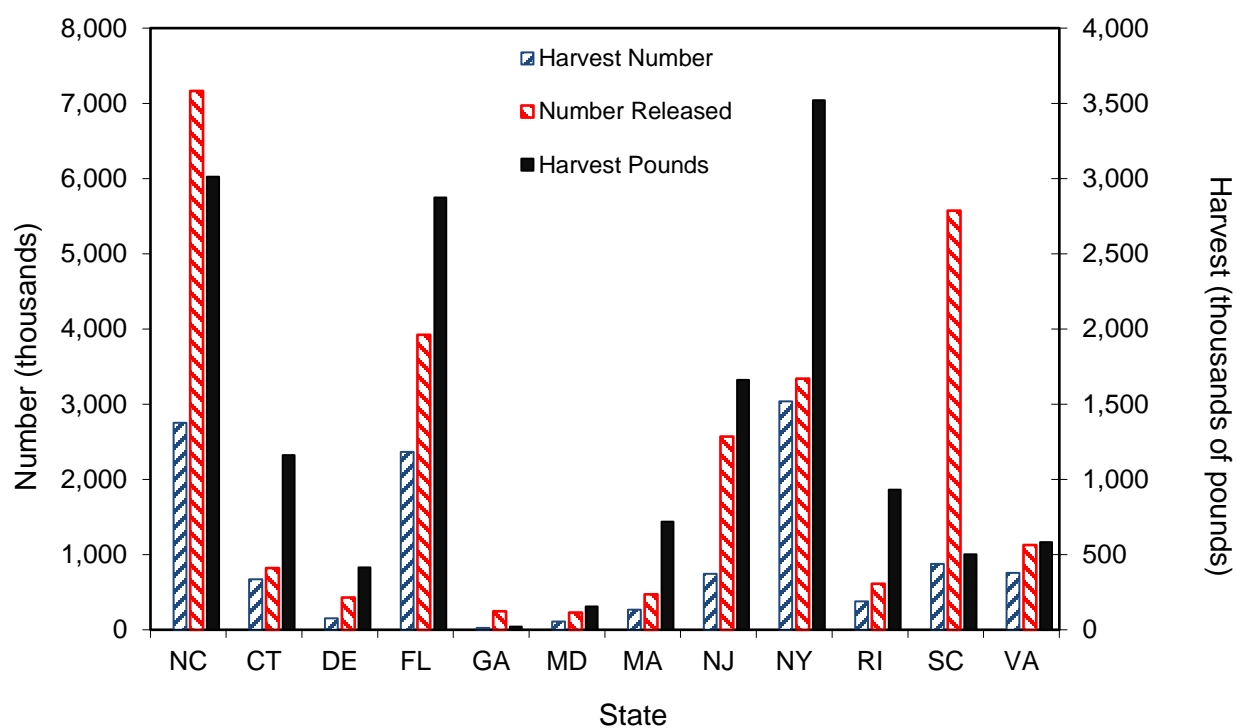


Figure III.10 Bluefish recreational catch by state, 2019.

Table III.16 Cobia recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	10,090	38.6	254,963	36.8	40.3	25.3	38,285	23.3
2018	25,331	33.2	685,962	29.1	40.7	27.1	68,219	23.4
2017	25,025	46.1	872,861	45.4	43.5	34.9	125,251	44.5
2016	26,421	44.9	838,363	44.6	42.7	31.7	39,237	26.6
2015	47,110	28.3	1,925,762	29.8	44.2	40.9	44,254	31.4
2014	24,601	35.8	645,427	35.8	39.3	26.2	32,184	29.3
2013	37,617	31.2	980,541	33.0	38.7	26.1	35,398	32.2
2012	3,805	33.9	102,077	35.2	39.0	26.8	66,567	30.1
2011	10,711	40.4	399,192	43.1	41.5	37.3	47,151	25.0
2010	24,030	26.8	808,227	27.8	43.2	33.6	48,590	29.7
2009	12,823	40.7	320,075	45.4	37.9	25.0	55,374	27.3
2008	3,972	54.9	167,463	68.5	45.3	42.2	24,028	39.2
2007	6,262	46.9	218,447	45.0	43.6	34.9	12,695	32.7
2006	5,154	39.4	196,330	45.6	42.6	38.1	11,425	30.1
2005	18,491	48.7	401,557	46.2	37.4	21.7	19,083	43.5
2004	12,522	39.9	420,684	41.4	43.0	33.6	11,079	42.1
2003	6,948	30.4	223,508	37.4	41.6	32.2	21,722	28.4
2002	7,196	46.1	319,178	54.6	48.1	44.4	14,036	38.4
2001	3,548	33.1	121,751	37.9	43.0	34.3	18,500	32.2
2000	2,473	59.6	91,143	54.3	41.0	36.9	4,734	39.8

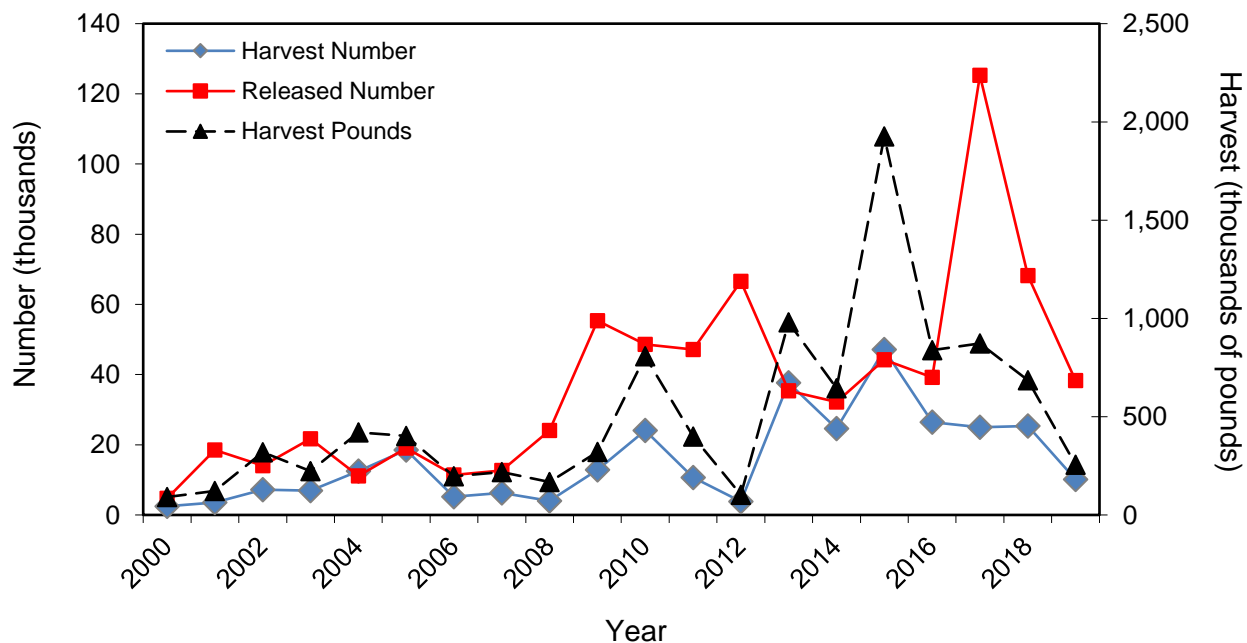


Figure III.11 Cobia recreational catch in North Carolina by year.

Table III.17 Cobia recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	10,090	38.6	254,963	36.8	40.3	25.3	38,285	23.3
Delaware	-	-	-	-	-	-	30	89.4
Florida	25,712	70.3	607,142	74.5	37.1	21.7	60,761	40.2
Georgia	72	56.9	1,632	56.8	37.6	22.7	9,080	55.5
Maryland	-	-	-	-	-	-	251	102.9
New Jersey	-	-	-	-	-	-	10,166	99.4
South Carolina	2,381	70.6	64,937	82.3	42.5	27.3	59,724	38.7
Virginia	55,770	22.6	1,573,485	22.0	39.7	28.2	184,716	25.5

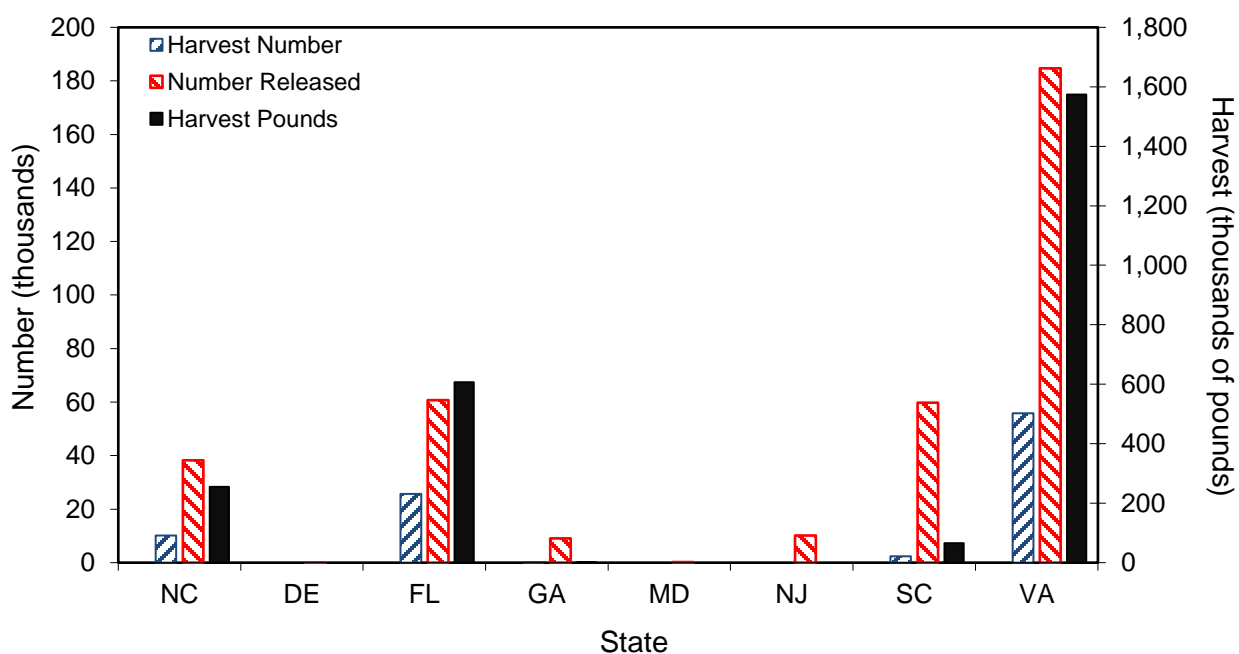


Figure III.12 Cobia recreational catch by state, 2019.

Table III.18 Dolphinfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	458,086	18.9	3,147,384	20.4	25.7	6.9	35,286	50.6
2018	495,435	15.6	3,318,532	14.8	25.6	6.7	27,959	42.1
2017	279,932	20.7	2,223,509	21.1	28.0	7.9	3,035	39.1
2016	480,860	17.2	5,099,647	18.9	31.1	10.6	2,520	61.4
2015	740,023	23.0	5,610,008	24.8	27.0	7.6	73,872	79.8
2014	403,203	26.9	2,933,166	25.9	27.0	7.3	6,731	55.9
2013	322,769	18.4	2,277,519	16.5	26.6	7.1	5,315	55.0
2012	426,877	13.0	3,335,644	13.5	28.4	7.8	4,800	37.5
2011	638,543	15.3	4,950,235	16.7	27.7	7.8	16,217	87.8
2010	615,081	17.8	3,754,430	15.9	25.2	6.1	5,759	50.4
2009	595,967	17.4	6,380,552	18.3	32.0	10.7	4,480	51.7
2008	362,023	15.4	3,227,899	17.3	29.2	8.9	2,393	56.7
2007	591,835	14.3	5,729,879	15.6	30.4	9.7	6,908	53.2
2006	551,924	13.4	4,300,459	13.4	27.8	7.8	32,911	39.8
2005	634,260	17.1	5,664,028	17.8	29.2	8.9	3,264	66.7
2004	323,140	16.3	2,445,482	15.8	27.6	7.6	6,905	58.6
2003	245,651	19.4	3,029,205	22.0	31.9	12.3	13,985	57.1
2002	400,736	13.1	4,853,768	14.6	30.5	12.1	3,699	45.3
2001	344,865	17.2	4,669,172	20.7	31.9	13.5	4,781	44.8
2000	516,491	15.6	4,631,849	16.5	28.4	9.0	17,396	32.0

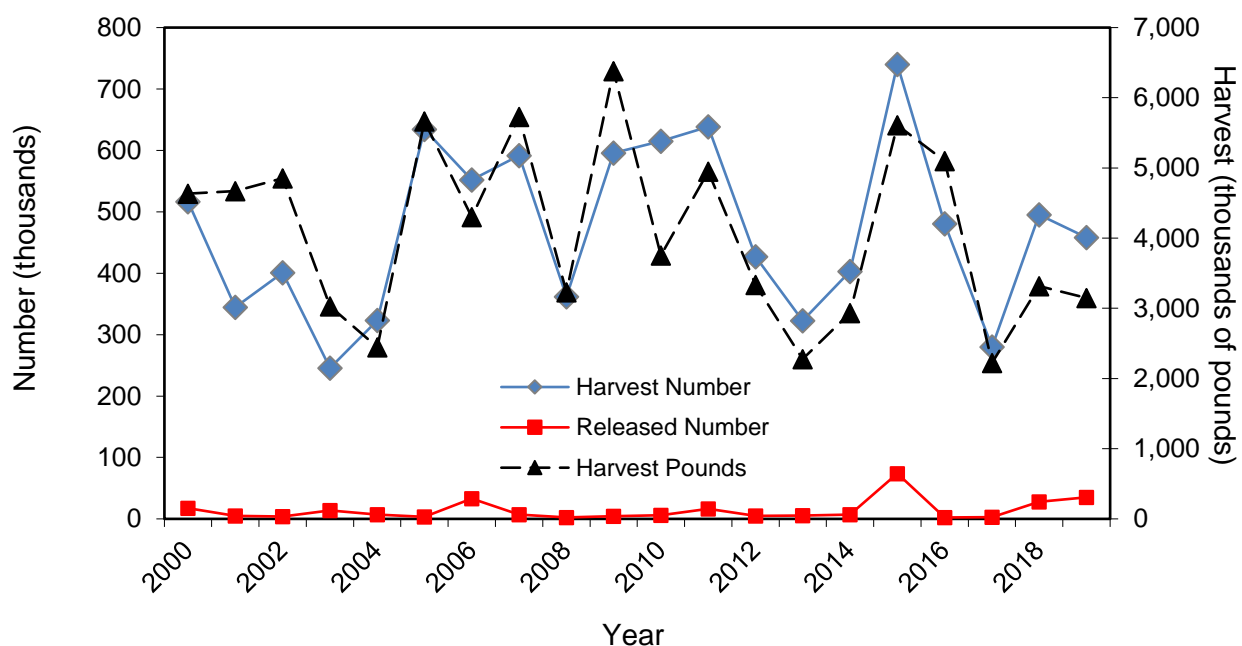


Figure III.13 Dolphinfish recreational catch in North Carolina by year.

Table III.19 Dolphinfish recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	458,086	18.9	3,147,384	20.4	25.7	6.9	35,286	50.6
Delaware	3,501	51.2	16,066	60.6	22.0	4.6	6,690	68.2
Florida	638,818	20.3	3,650,195	20.5	24.4	5.5	644,079	35.8
Georgia	16	112.1	70	112.1	23.8	4.3	-	-
Maryland	35,990	37.0	242,662	38.1	26.7	6.7	11,262	56.9
New Jersey	188,403	30.6	805,023	34.5	21.9	4.3	19,069	47.6
New York	99,560	89.9	372,190	85.5	21.9	3.7	22,944	97.1
Rhode Island	8	91.1	65	91.1	29.1	8.2	-	-
South Carolina	99,126	62.6	1,170,240	71.1	32.3	11.8	4,480	64.0
Virginia	9,082	35.0	82,671	37.0	30.0	9.1	15,429	76.2

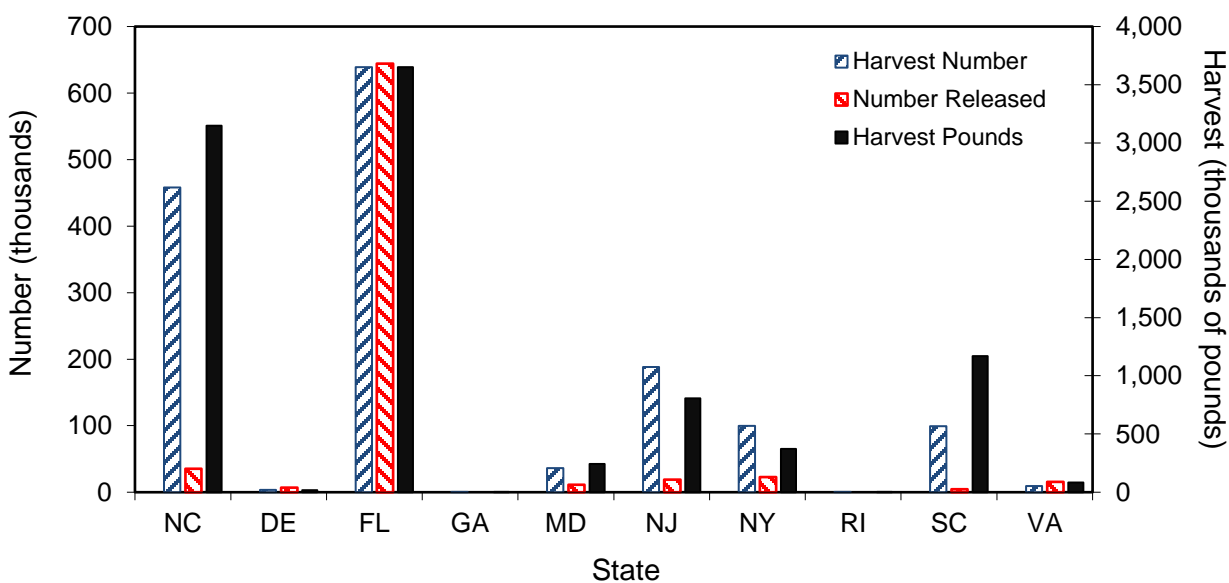


Figure III.14 Dolphinfish recreational catch by state, 2019.

Table III.20 Florida Pompano recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	1,734,862	50.3	769,603	46.1	7.8	0.4	1,668,678	35.0
2018	318,702	37.4	245,670	42.2	8.7	0.8	1,267,505	22.9
2017	730,412	54.4	290,660	54.5	7.4	0.4	1,681,692	31.7
2016	411,634	42.7	258,769	55.2	8.3	0.6	1,446,589	27.2
2015	722,558	36.0	306,213	42.8	7.1	0.4	883,312	25.9
2014	646,308	33.0	360,398	33.5	8.4	0.6	1,112,888	21.8
2013	1,978,916	25.3	735,833	21.4	7.3	0.4	2,967,947	20.8
2012	479,495	16.9	261,933	21.6	8.4	0.5	1,079,328	19.2
2011	698,273	18.4	275,846	17.6	7.5	0.4	1,421,287	17.1
2010	452,467	19.3	179,641	17.6	7.3	0.4	1,099,167	22.5
2009	580,096	20.6	257,813	20.9	8.0	0.4	755,251	18.8
2008	404,194	21.5	204,250	23.4	7.9	0.5	841,824	21.3
2007	259,331	27.4	121,883	23.8	8.2	0.5	757,063	22.9
2006	247,766	30.6	121,883	35.1	9.3	0.5	1,194,051	36.2
2005	407,705	26.5	211,710	32.8	7.9	0.5	719,238	26.7
2004	1,108,124	24.7	518,316	23.4	8.0	0.5	941,805	21.3
2003	770,738	24.9	483,289	21.6	8.3	0.6	946,984	31.7
2002	824,902	40.3	540,521	44.8	8.8	0.7	296,537	25.1
2001	684,843	38.2	236,463	39.7	7.6	0.3	611,086	35.0
2000	917,597	21.7	248,162	22.5	6.9	0.3	573,935	24.3

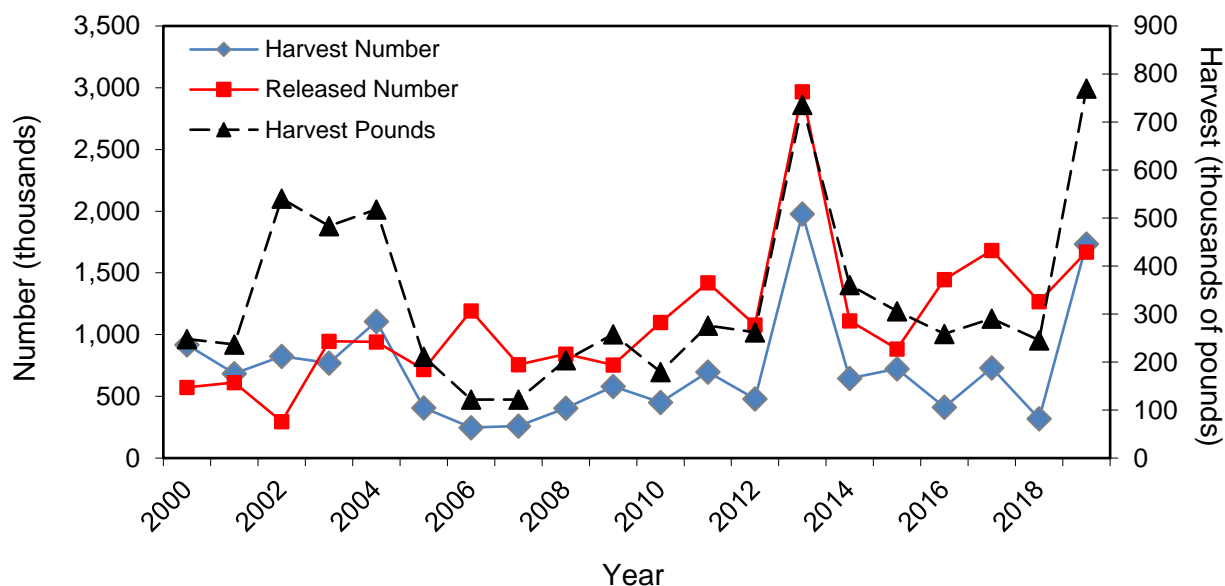


Figure III.15 Florida Pompano recreational catch in North Carolina by year.

Table III.21 Florida Pompano recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	1,734,862	50.3	769,603	46.1	7.8	0.4	1,668,678	35.0
Delaware	-	-	-	-	-	-	503	103.8
Florida	1,886,409	20.3	2,806,880	19.5	12.3	1.5	1,737,312	33.3
Georgia	14,720	86.9	7,854	91.1	8.0	0.5	9,849	58.0
Maryland	-	-	-	-	-	-	222	100.7
South Carolina	400,652	46.7	208,712	46.3	7.7	0.5	1,858,148	28.4
Virginia	8,505	73.6	6,647	58.8	9.7	0.8	17,559	55.6

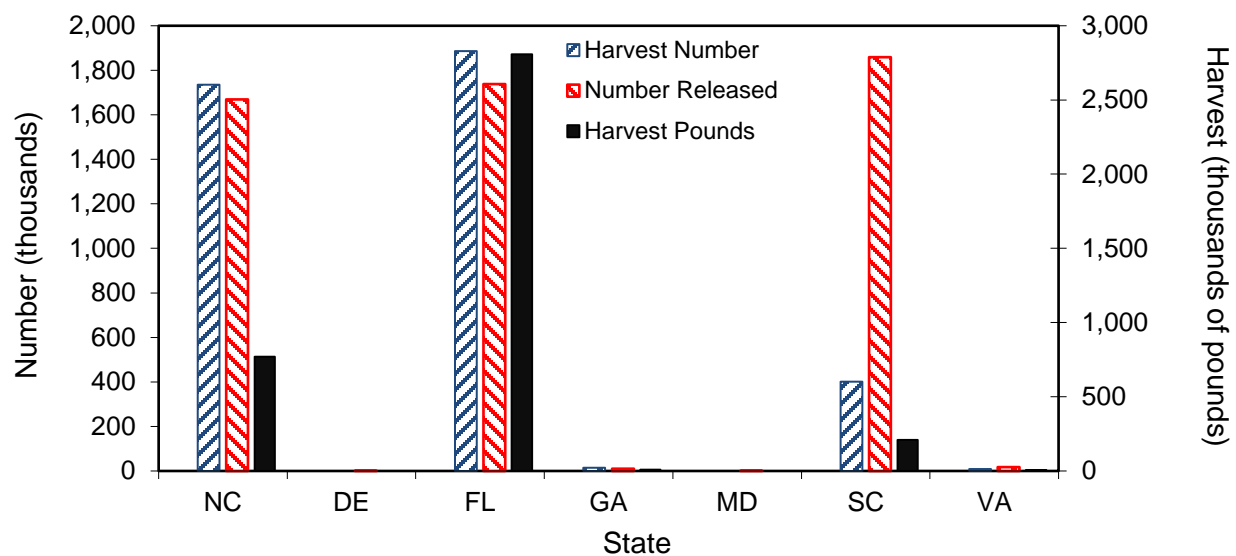


Figure III.16 Florida Pompano recreational catch by state, 2019.

Table III.22 Gag Grouper recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	7,569	56.9	81,372	59.5	26.8	10.8	9,684	57.5
2018	171	53.5	1,326	54.0	25.4	7.8	1,070	75.1
2017	3,688	96.0	48,086	96.2	29.5	13.0	17,832	33.8
2016	3,890	62.1	52,660	72.8	29.9	13.5	27,599	39.0
2015	3,447	66.5	47,547	74.6	30.2	13.8	73,193	33.9
2014	1,484	59.8	14,596	55.2	27.3	9.8	23,751	42.5
2013	4,703	39.8	40,921	41.9	26.4	8.7	16,738	24.7
2012	13,194	27.3	155,017	27.6	27.9	11.7	45,047	29.1
2011	5,837	49.7	75,069	49.5	28.8	12.9	33,292	48.2
2010	6,183	42.0	80,042	43.3	29.1	12.9	39,103	39.4
2009	21,879	40.6	336,547	48.3	30.3	15.4	18,275	53.2
2008	12,483	41.2	172,429	39.4	30.2	13.8	45,233	29.9
2007	23,966	32.0	277,250	31.8	28.2	11.6	113,880	61.1
2006	25,243	35.6	372,020	37.0	30.8	14.7	9,972	43.2
2005	19,354	36.1	227,171	37.6	29.3	11.7	33,837	39.1
2004	28,327	48.9	399,365	60.0	29.4	14.1	20,902	46.8
2003	12,089	45.3	163,552	48.0	29.2	13.5	8,354	79.6
2002	7,772	55.0	103,079	61.4	28.8	13.3	32,289	77.0
2001	7,642	34.8	68,797	37.6	26.5	9.0	3,866	55.0
2000	4,503	56.3	30,367	56.8	24.1	6.7	1,284	95.4

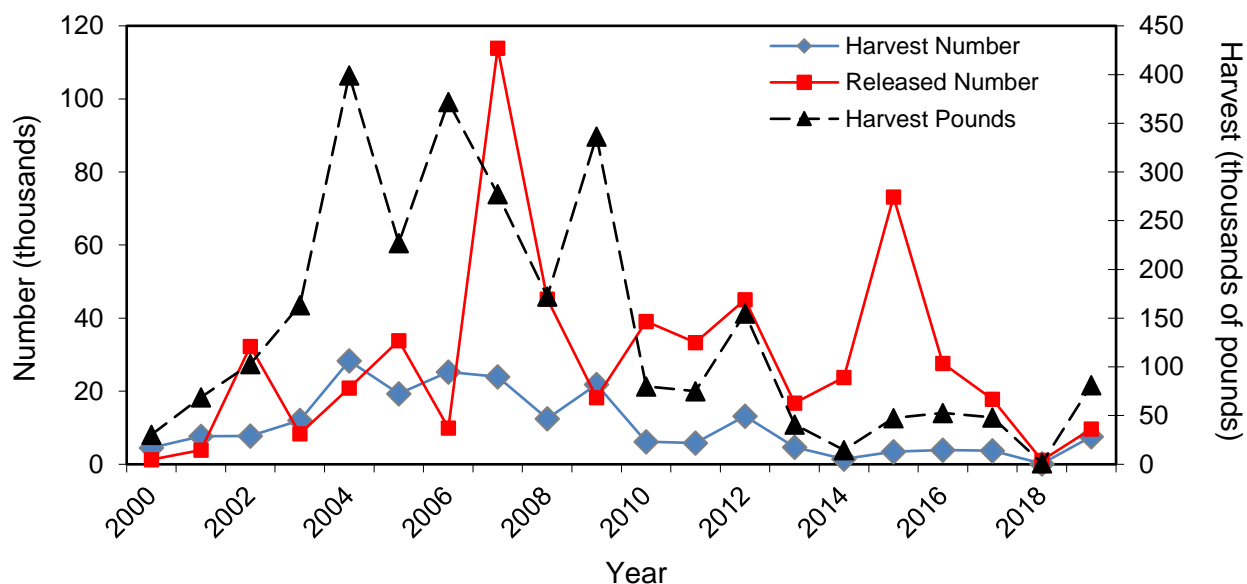


Figure III.17 Gag Grouper recreational catch in North Carolina by year.

Table III.23 Gag Grouper recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	7,569	56.9	81,372	59.5	26.8	10.8	9,684	57.5
Florida	12,154	58.1	229,353	51.4	26.7	9.6	11,055	45.7
South Carolina	2,000	88.4	18,027	84.5	26.0	9.0	3,008	55.4

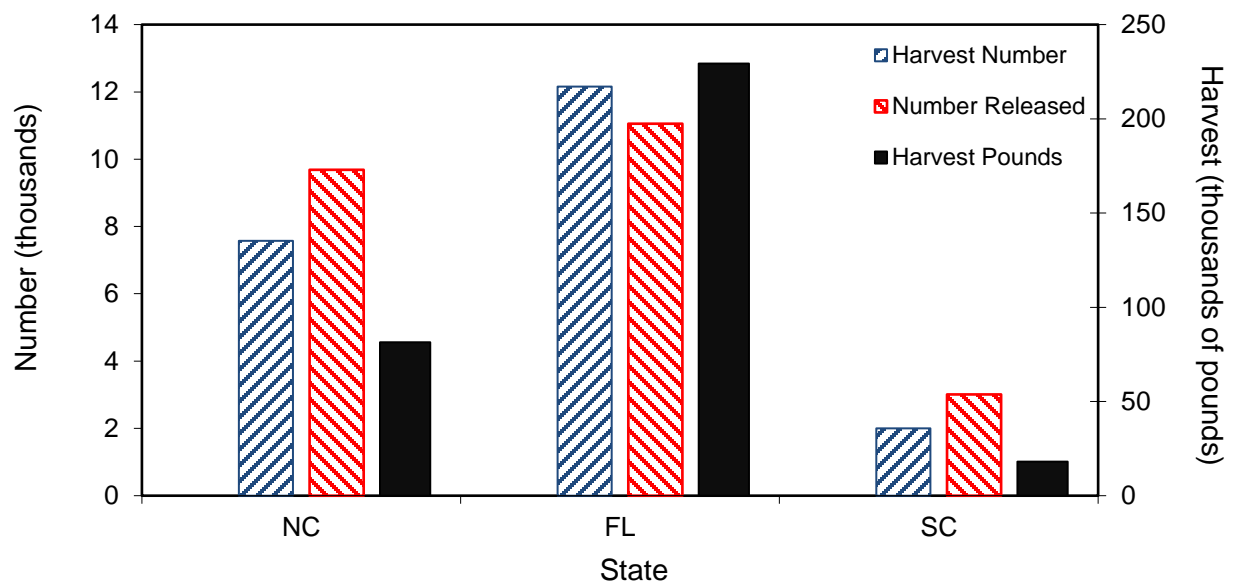


Figure III.18 Gag Grouper recreational catch by state, 2019.

Table III.24 Greater Amberjack recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	4,236	38.6	81,769	40.8	32.9	19.3	4,980	50.3
2018	11,742	43.1	227,441	40.4	34.2	19.4	2,243	55.6
2017	6,653	26.8	157,091	28.4	35.1	23.6	6,229	31.7
2016	18,608	32.8	305,372	32.9	32.0	16.4	31,318	42.5
2015	16,436	23.0	360,417	24.9	34.3	21.9	10,128	84.3
2014	5,004	35.5	94,629	32.8	33.3	18.9	1,935	56.3
2013	19,275	31.9	428,664	33.9	34.6	22.2	21,209	53.3
2012	12,412	23.8	216,938	24.1	32.2	17.5	3,379	50.1
2011	6,810	33.2	142,570	35.7	34.2	20.9	9,295	94.5
2010	20,377	31.2	455,278	29.4	35.7	22.3	4,773	55.3
2009	25,670	30.1	686,583	30.6	37.8	26.7	9,226	50.3
2008	18,446	27.4	422,220	29.5	35.5	22.9	17,393	54.7
2007	5,789	67.2	90,525	60.5	30.7	15.6	-	-
2006	14,023	67.9	289,118	68.2	33.3	20.6	3,289	99.1
2005	2,956	70.0	78,610	55.7	34.8	26.6	4,612	77.3
2004	1,949	33.8	40,556	33.6	34.6	20.8	3,261	72.6
2003	6,198	43.3	139,546	43.2	34.5	22.5	6,676	58.8
2002	5,733	32.0	137,296	33.3	35.2	23.9	18,266	48.0
2001	4,274	31.0	110,990	33.6	36.1	26.0	3,186	46.9
2000	6,214	42.2	136,075	43.7	33.5	21.9	4,026	62.2

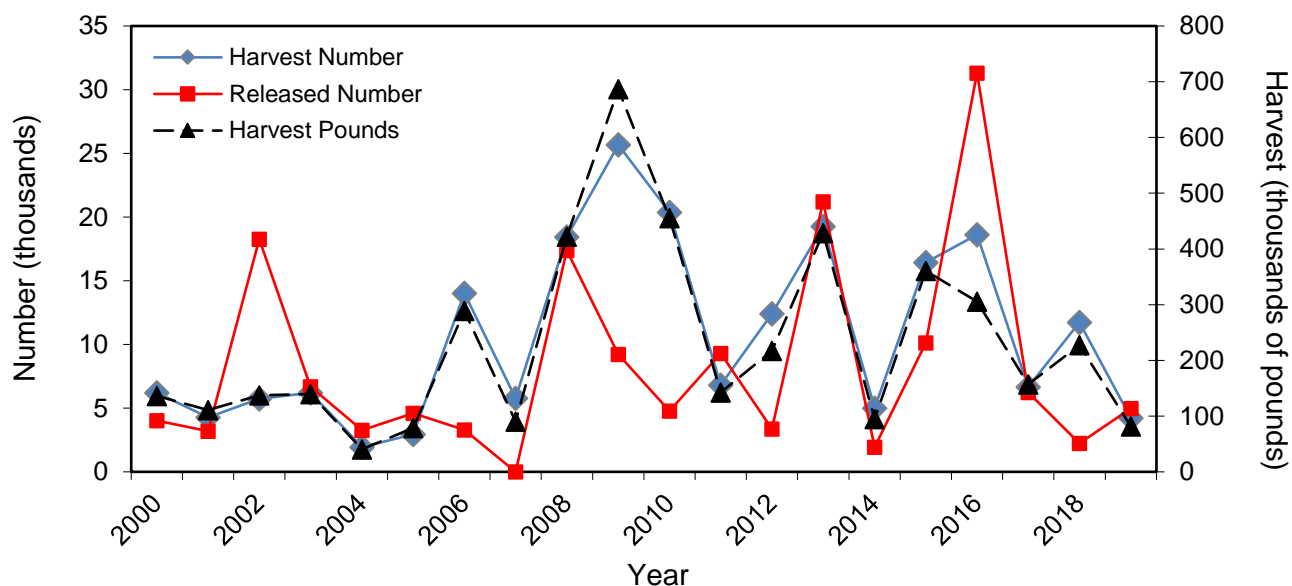


Figure III.19 Greater Amberjack recreational catch in North Carolina by year.

Table III.25 Greater Amberjack recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	4,236	38.6	81,769	40.8	32.9	19.3	4,980	50.3
Florida	74,084	32.0	1,220,226	38.3	31.8	18.8	157,529	31.0
Georgia	3,623	72.8	64,090	77.6	32.6	17.7	29,515	97.6
South Carolina	1,963	68.0	24,018	74.9	28.2	12.2	2,036	67.2
Virginia	-	-	-	-	-	-	41	34.7

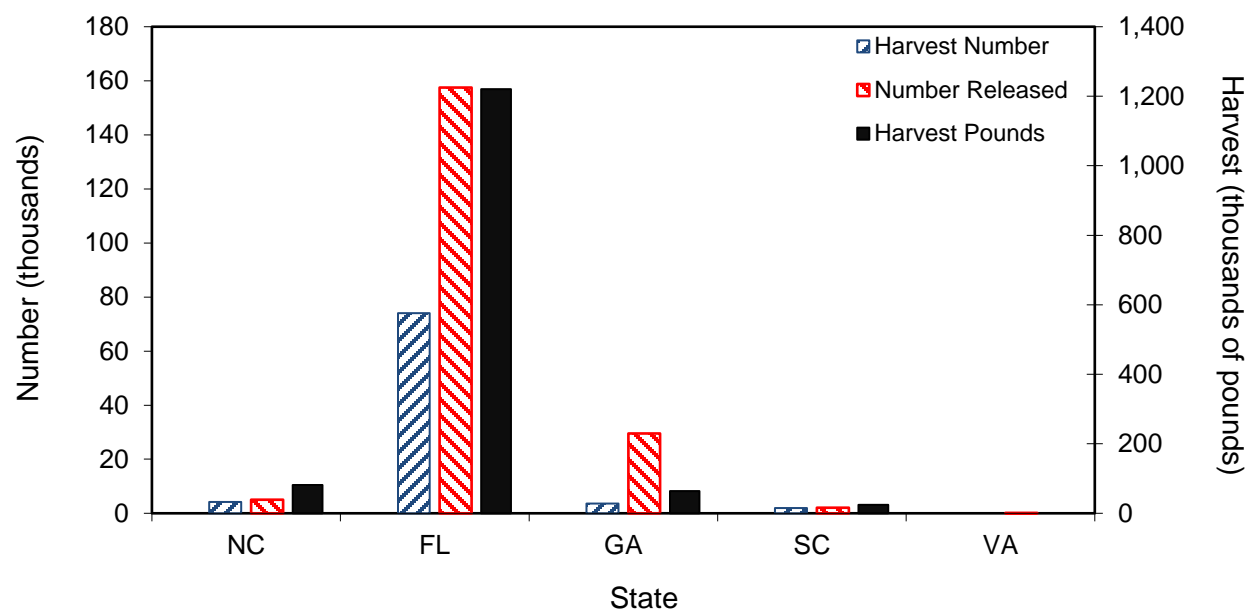


Figure III.20 Greater Amberjack recreational catch by state, 2019.

Table III.26 Great Barracuda recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	1,661	28.8	15,529	31.2	32.9	9.4	30,700	43.4
2018	5,848	37.2	52,304	34.8	33.0	8.9	19,937	55.0
2017	2,771	58.5	76,501	79.6	47.0	27.6	15,683	39.6
2016	2,420	55.0	27,950	53.7	35.7	11.6	5,599	42.3
2015	3,844	45.6	22,806	40.3	27.5	5.9	9,561	41.6
2014	2,564	80.5	36,960	83.6	41.3	14.4	2,358	58.4
2013	365	74.9	2,183	72.9	28.9	6.0	7,722	51.8
2012	972	44.5	11,601	40.0	36.6	11.9	5,781	38.1
2011	1,100	40.0	12,375	37.7	36.1	11.2	5,286	50.3
2010	2,127	38.9	17,803	40.0	32.2	8.4	6,152	36.0
2009	2,500	41.9	21,007	40.8	33.1	8.4	20,831	47.5
2008	10,877	59.7	103,655	57.3	33.8	9.5	17,468	36.6
2007	823	76.6	7,288	73.1	33.3	8.9	4,989	55.0
2006	158	54.6	1,446	51.9	32.8	9.1	8,240	50.9
2005	5,883	59.1	60,348	55.2	34.2	10.3	13,186	55.5
2004	9,691	62.2	103,666	67.7	35.5	10.7	8,522	83.4
2003	6,562	34.1	90,668	41.3	35.3	13.8	4,213	47.5
2002	7,887	33.8	88,024	32.7	33.1	11.2	8,573	33.1
2001	6,214	42.8	82,942	42.9	36.2	13.3	9,001	28.2
2000	423	54.6	6,597	60.6	39.9	15.6	3,231	42.8

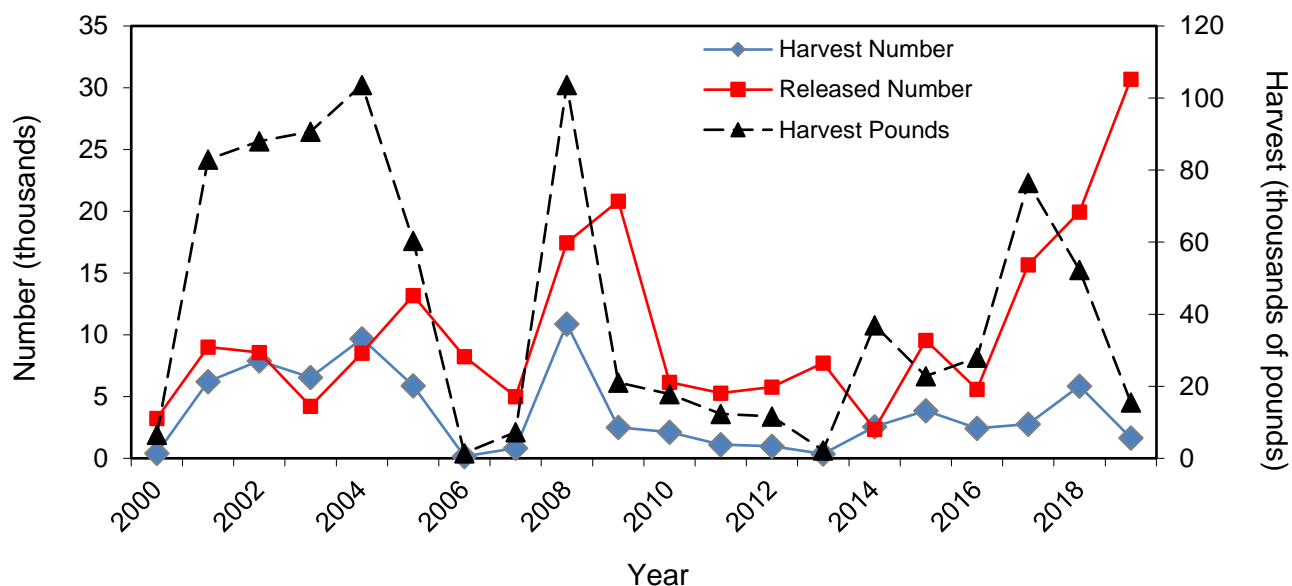


Figure III.21 Great Barracuda recreational catch in North Carolina by year.

Table III.27 Great Barracuda recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	1,661	28.8	15,529	31.2	32.9	9.4	30,700	43.4
Florida	178,498	32.7	1,277,744	36.0	30.3	7.3	634,571	23.0
Georgia	5,095	58.4	59,454	67.0	35.8	11.7	20,129	42.8
South Carolina	1,338	44.7	13,832	43.9	34.6	10.3	14,480	42.6

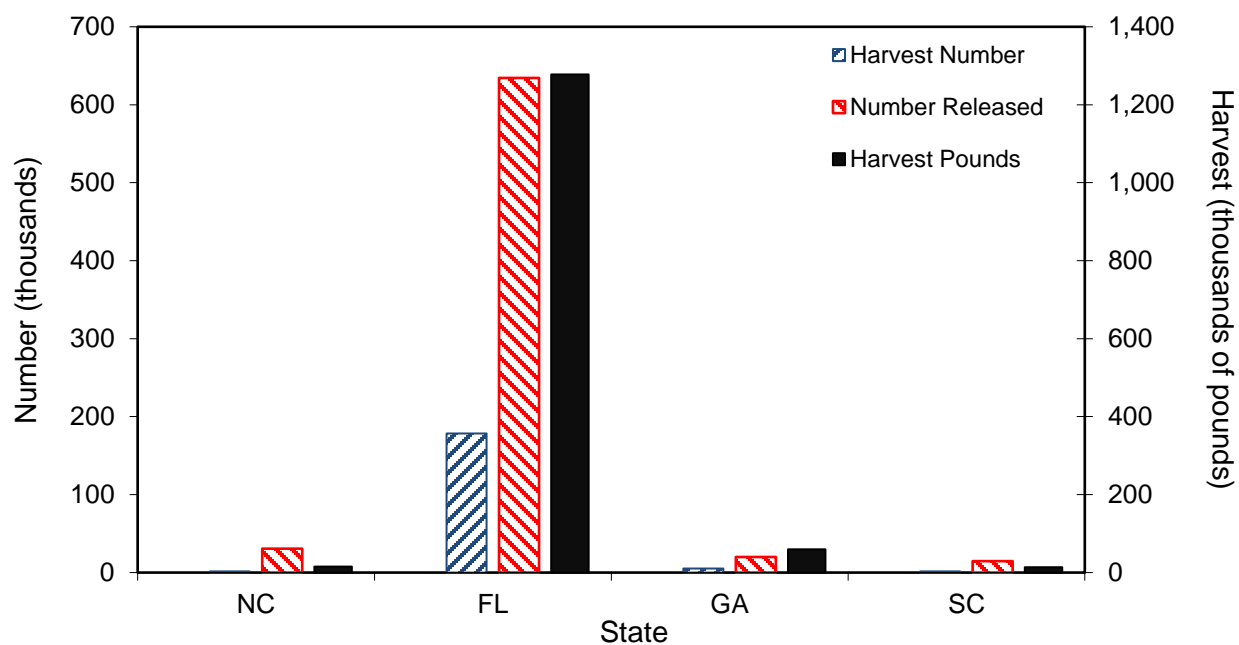


Figure III.22 Great Barracuda recreational catch by state, 2019.

Table III.28 Gulf Kingfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ¹	PSE (release) ⁴
2019	730,866	72.0	440,502	70.4	11.1	0.6	1,965,756	-
2018	247,241	39.1	161,101	38.2	11.6	0.7	854,041	-
2017	364,215	27.0	271,422	30.1	12.1	0.7	1,091,051	-
2016	504,926	37.3	262,512	35.2	10.8	0.5	1,448,848	-
2015	589,899	28.1	372,465	29.4	11.2	0.6	1,031,454	-
2014	852,684	27.7	550,685	32.7	11.4	0.6	2,348,027	-
2013	888,648	21.1	479,276	22.5	10.4	0.5	1,864,788	-
2012	1,025,099	15.2	541,883	15.2	10.4	0.5	1,947,002	-
2011	453,644	23.9	336,462	26.1	11.9	0.7	841,224	-
2010	863,479	17.0	493,400	18.2	10.8	0.6	1,485,368	-
2009	706,957	30.0	397,010	31.3	10.2	0.6	1,094,812	-
2008	580,344	18.2	290,414	18.8	10.4	0.5	866,656	-
2007	254,403	31.8	207,483	37.8	12.0	0.8	481,080	-
2006	125,527	45.7	78,755	51.5	11.2	0.6	207,277	-
2005	249,866	48.4	126,239	45.2	9.9	0.5	418,836	-
2004	717,508	35.0	463,847	41.3	11.2	0.6	973,597	-
2003	181,630	22.9	95,117	23.7	10.4	0.5	591,299	-
2002	182,540	31.9	74,139	32.3	9.7	0.4	223,538	-
2001	145,004	31.5	76,862	30.3	10.5	0.5	73,634	-
2000	69,305	39.1	40,405	41.2	10.1	0.6	54,619	-

⁴ Kingfish releases are not recorded to species; released number was calculated by assigning a ratio of observed kingfish by species to reported kingfish genus release estimates. PSEs are not available for this analysis.

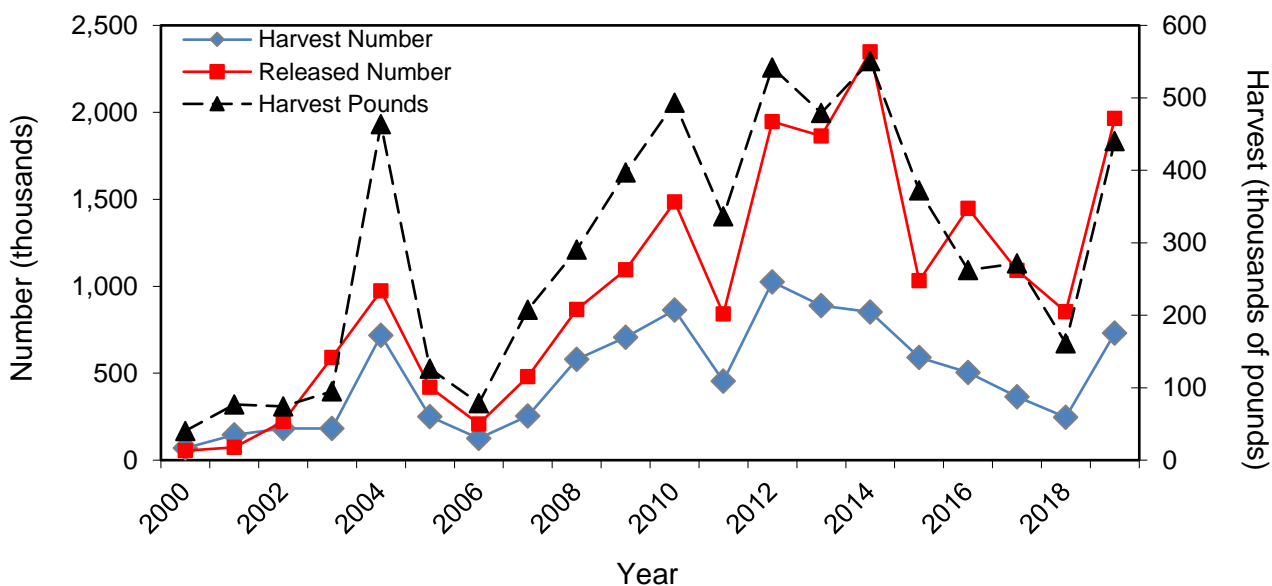


Figure III.23 Gulf Kingfish recreational catch in North Carolina by year.

Table III.29 Gulf Kingfish recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ¹	PSE (release) ⁵
North Carolina	730,866	72.0	440,502	70.4	11.1	0.6	-	-
Florida	2,055,068	38.6	1,483,674	40.2	11.9	0.7	-	-
South Carolina	52,042	36.6	24,784	34.8	10.2	0.5	-	-

⁵ Released kingfish are not always recorded to species level. Numbers released are not shown by state.

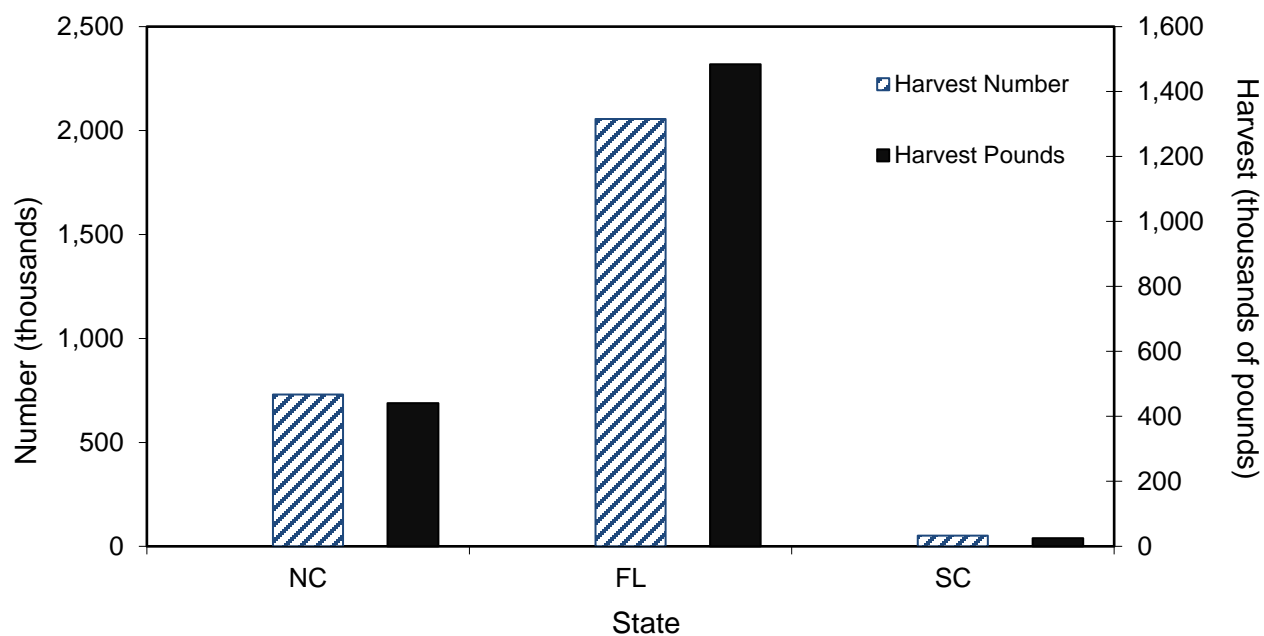


Figure III.24 Gulf Kingfish recreational catch by state, 2019.

Table III.30 King Mackerel recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	184,962	23.7	1,446,939	24.8	29.7	7.8	115,350	42.1
2018	102,675	19.0	1,018,459	30.1	30.3	9.9	75,614	32.6
2017	110,339	22.6	1,261,775	31.8	31.9	11.4	94,655	28.6
2016	108,151	43.4	963,139	41.7	30.4	8.9	43,909	31.6
2015	95,705	37.2	1,168,255	52.5	33.3	12.2	16,877	52.4
2014	72,288	22.7	1,213,096	22.9	38.7	16.8	35,075	92.8
2013	48,000	23.3	521,153	25.2	32.6	10.9	8,868	54.2
2012	55,529	24.5	613,903	25.3	32.9	11.1	6,385	38.1
2011	31,589	36.3	367,896	31.3	34.0	11.6	851	72.9
2010	58,311	23.8	580,505	23.4	32.5	10.0	9,734	36.0
2009	168,558	17.5	1,822,673	18.4	32.7	10.8	23,639	33.2
2008	164,719	18.7	1,379,450	19.0	30.1	8.4	41,283	43.9
2007	339,278	15.2	3,099,801	15.5	31.1	9.1	53,549	29.4
2006	177,369	17.9	1,805,814	22.3	32.0	10.2	45,568	29.1
2005	175,070	16.0	1,349,536	15.9	29.6	7.7	101,507	26.2
2004	191,584	17.7	2,276,035	22.9	32.2	11.9	184,384	38.7
2003	153,339	17.1	1,388,145	17.3	30.4	9.1	33,774	27.5
2002	104,631	40.7	1,242,058	42.4	33.0	11.9	20,811	49.1
2001	145,290	12.8	2,046,022	16.2	34.5	14.1	12,381	41.8
2000	196,979	20.8	2,250,512	17.9	32.0	11.4	26,009	41.1

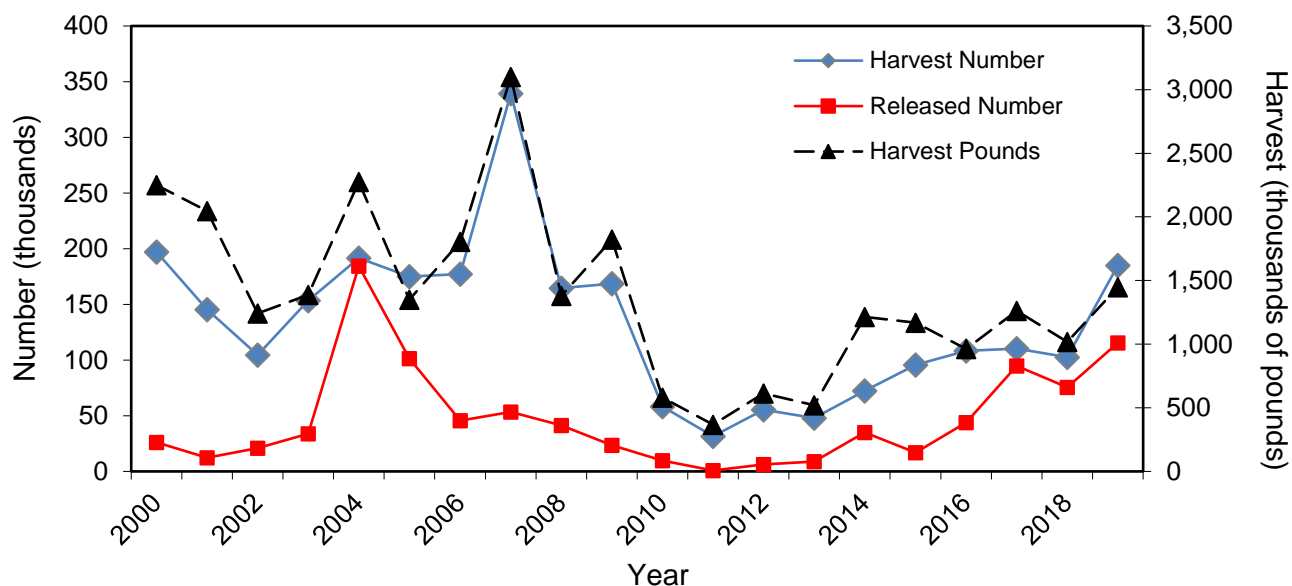


Figure III.25 King Mackerel recreational catch in North Carolina by year.

Table III.31 King Mackerel recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	184,962	23.7	1,446,939	24.8	29.7	7.8	115,350	42.1
Delaware	50	37.5	449	37.5	30.2	8.9	-	-
Florida	531,351	17.4	4,809,074	16.6	31.6	9.3	109,550	27.5
Georgia	23,998	36.9	252,455	46.4	33.4	10.5	16,732	72.1
Maryland	2,233	51.8	9,213	47.5	24.1	4.1	4,652	35.8
New Jersey	637	85.0	8,269	98.8	28.6	13.0	-	-
South Carolina	48,971	33.5	551,976	41.0	32.8	11.3	90,788	47.3
Virginia	1,000	72.8	5,726	70.7	27.7	5.7	188	103.2

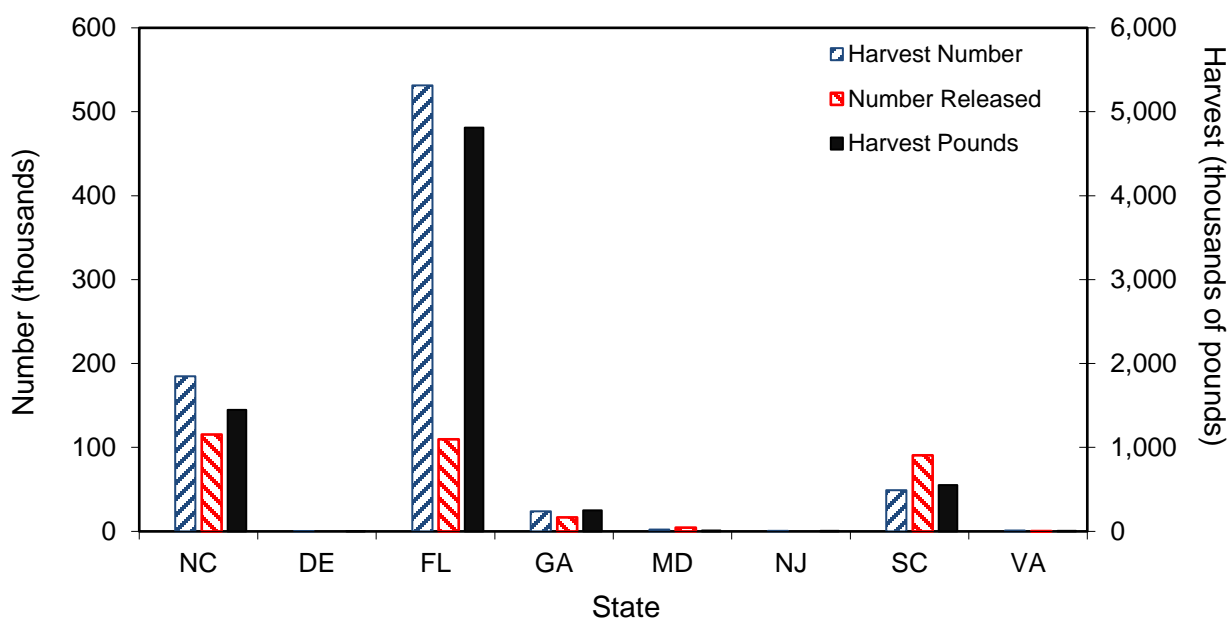


Figure III.26 King Mackerel recreational catch by state, 2019.

Table III.32 Northern Kingfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ¹	PSE (release) ⁴
2019	2,381	102.7	1,050	102.7	10.9	0.4	2,983	-
2018	16,413	62.2	5,808	68.1	9.2	0.4	32,834	-
2017	59,267	46.3	59,681	50.4	13.2	1.0	143,968	-
2016	1,972	64.3	1,075	71.8	10.8	0.5	8,656	-
2015	16,981	64.9	9,085	54.9	10.9	0.5	47,636	-
2014	5,219	74.5	2,775	70.5	11.2	0.5	35,775	-
2013	50,344	38.0	22,997	36.2	10.9	0.5	116,394	-
2012	36,233	32.0	20,380	30.8	11.3	0.6	47,919	-
2011	139,736	29.4	95,818	34.3	12.2	0.7	183,329	-
2010	34,100	31.6	19,975	32.8	11.1	0.6	91,382	-
2009	143,485	54.5	71,909	56.0	10.6	0.5	201,994	-
2008	61,460	48.1	32,458	46.0	10.1	0.5	61,811	-
2007	642,696	23.5	396,193	22.3	11.3	0.6	724,674	-
2006	181,801	30.1	134,827	34.1	12.1	0.7	340,846	-
2005	44,175	38.2	23,100	35.0	11.0	0.5	67,243	-
2004	310,701	22.0	172,324	23.1	11.1	0.6	531,778	-
2003	372,700	27.8	249,726	30.2	11.8	0.7	283,462	-
2002	353,668	56.8	212,454	58.2	11.7	0.6	121,335	-
2001	420,398	24.5	287,564	24.7	12.0	0.7	160,446	-
2000	417,862	21.6	289,915	22.5	11.8	0.7	241,234	-

⁴ Kingfish releases are not recorded to species; released number was calculated by assigning a ratio of observed kingfish by species to reported kingfish genus release estimates. PSEs are not available for this analysis.

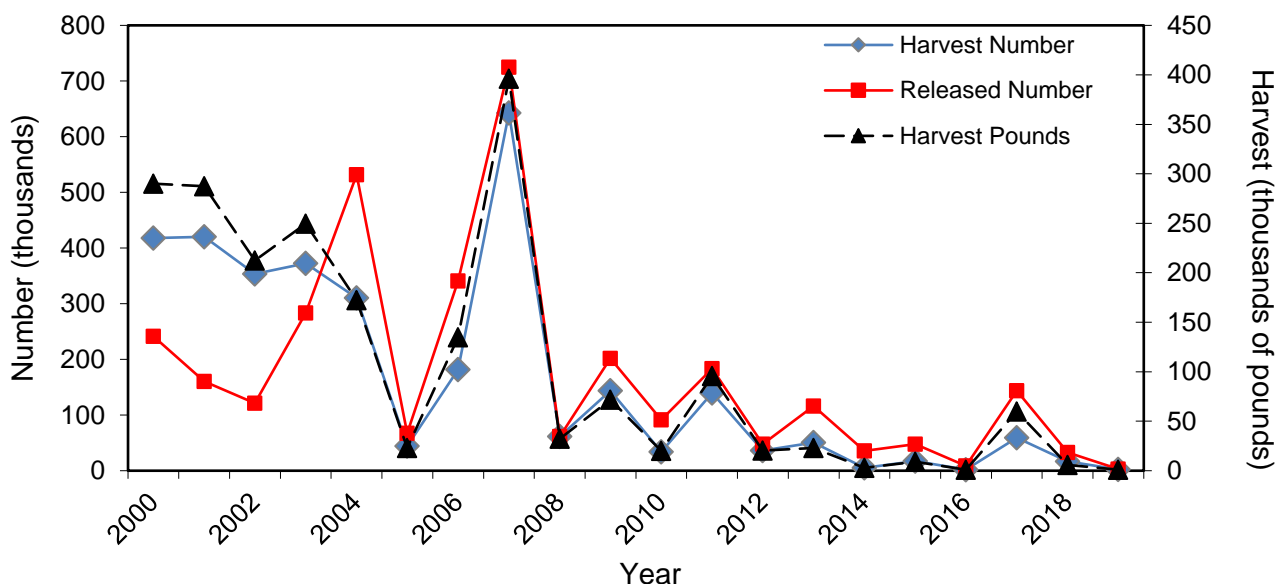


Figure III.27 Northern Kingfish recreational catch in North Carolina by year.

Table III.33 Northern Kingfish recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ¹	PSE (release) ⁵
North Carolina	2,381	102.7	1,050	102.7	10.9	0.4	-	-
Delaware	36,430	41.6	15,515	42.2	10.0	0.4	-	-
Florida	130,432	113.5	25,341	113.5	7.5	0.2	-	-
Maryland	40,808	79.4	18,988	79.1	10.4	0.5	-	-
New Jersey	39,422	66.3	23,797	67.3	11.5	0.6	-	-
New York	53,758	85.3	21,465	85.2	9.5	0.4	-	-
Rhode Island	853	101.3	564	101.3	11.3	0.7	-	-
Virginia	98,749	64.0	49,768	62.1	10.5	0.5	-	-

⁵Released kingfish are not always recorded to species level. Numbers released are not shown by state.

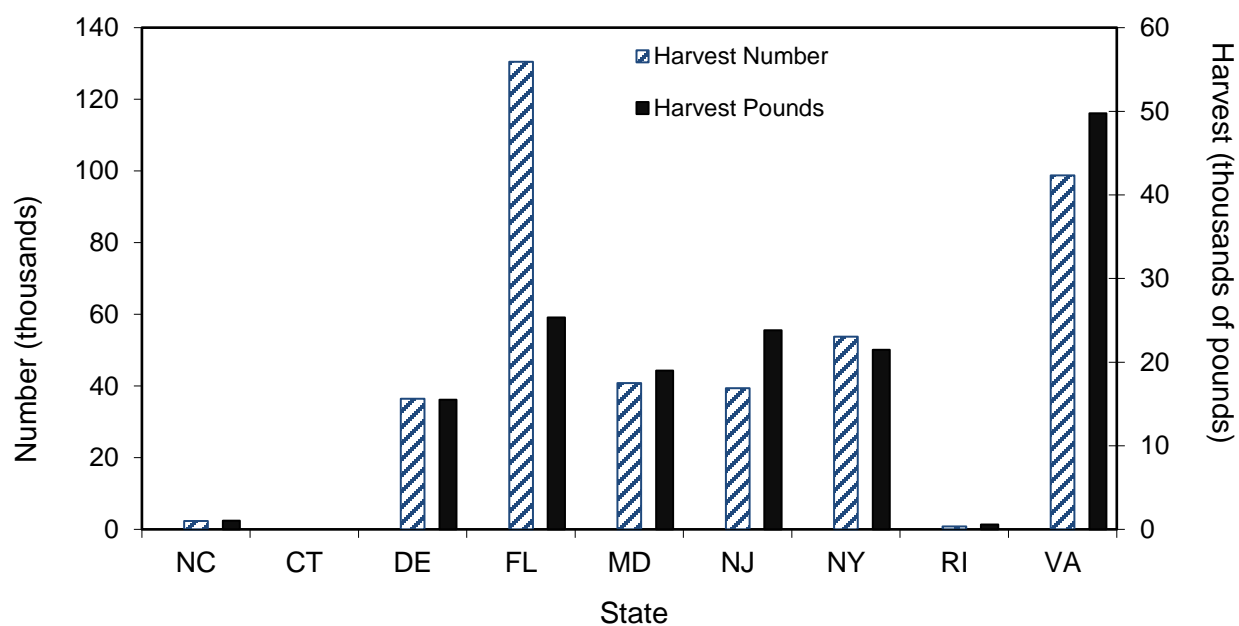


Figure III.28 Northern Kingfish recreational catch by state, 2019.

Table III.34 Northern Puffer recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	2,394,588	29.5	1,016,972	29.9	7.8	0.4	2,240,965	19.3
2018	325,810	56.7	148,220	59.7	7.8	0.5	407,924	23.5
2017	518,342	26.7	258,605	24.7	8.3	0.5	1,878,428	41.1
2016	1,627,063	21.9	782,983	22.1	8.2	0.5	1,927,787	17.6
2015	2,752,120	31.1	1,334,104	28.1	8.1	0.5	3,645,599	18.1
2014	490,259	38.9	248,174	40.4	9.0	0.5	419,798	31.4
2013	899,150	37.3	449,032	28.6	8.3	0.5	347,152	32.1
2012	1,074,685	23.5	613,493	24.7	8.5	0.6	1,571,047	11.0
2011	923,100	22.4	579,923	24.0	9.0	0.6	1,220,673	17.9
2010	1,491,844	35.6	816,436	34.8	8.7	0.5	711,264	23.8
2009	194,158	32.3	108,035	31.1	8.6	0.6	40,466	35.1
2008	311,487	33.2	117,706	30.0	7.5	0.4	23,158	60.5
2007	153,264	41.3	93,648	42.7	9.1	0.6	33,626	52.7
2006	162,012	78.3	104,601	81.5	9.2	0.6	34,587	47.6
2005	237,213	49.3	147,256	53.7	9.0	0.6	195,199	53.3
2004	254,184	31.7	160,160	30.6	8.9	0.6	127,519	25.1
2003	800,863	55.3	660,167	58.5	9.5	0.8	51,113	43.5
2002	677,253	32.9	388,883	35.2	9.2	0.6	148,184	36.0
2001	589,195	20.6	397,663	21.3	9.1	0.7	134,411	28.3
2000	357,127	21.6	214,219	23.8	8.9	0.6	145,073	47.0

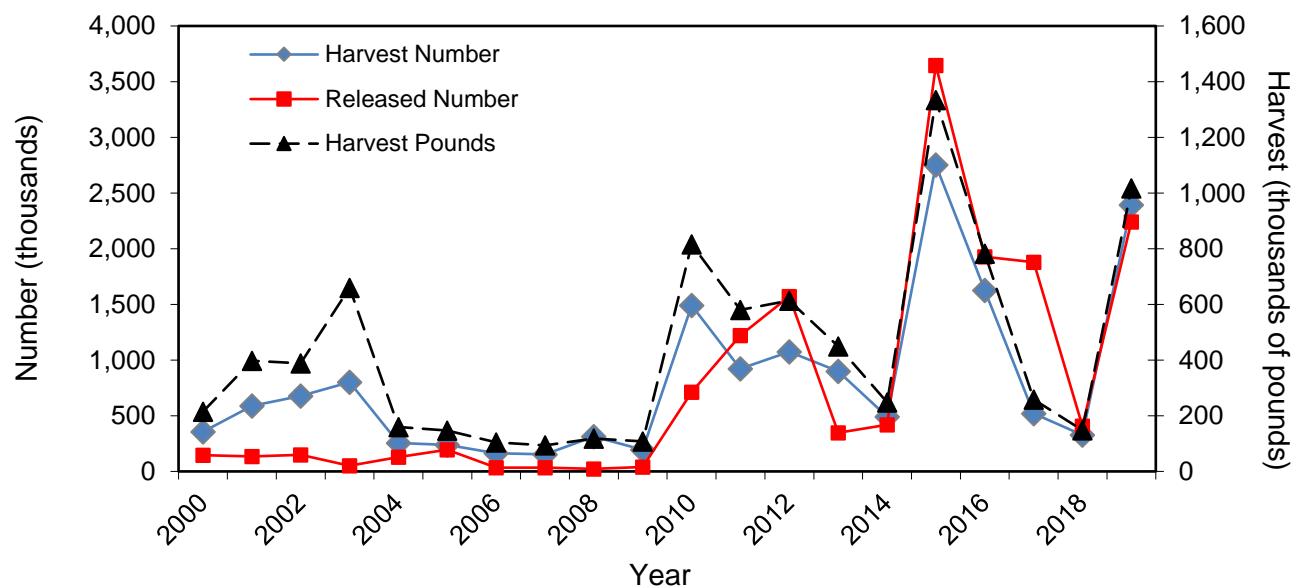


Figure III.29 Northern Puffer recreational catch in North Carolina by year.

Table III.35 Northern Puffer recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	2,394,588	29.5	1,016,972	29.9	7.8	0.4	2,240,965	19.3
Connecticut	-	-	-	-	-	-	165	78.3
Delaware	1,515	53.6	817	54.5	8.2	0.5	3,721	42.2
Georgia	-	-	-	-	-	-	2,193	65.4
Maryland	60	102.5	26	102.5	8.3	0.4	20,399	77.2
Massachusetts	-	-	-	-	-	-	204	100.4
New Jersey	492,507	50.3	228,098	50.1	8.0	0.5	757,578	49.3
New York	133,181	44.2	60,276	43.8	8.0	0.5	562,956	25.1
Rhode Island	139	101.6	108	101.6	9.6	0.8	4,426	79.8
South Carolina	5,275	65.8	2,253	61.8	7.8	0.4	76,227	57.6
Virginia	209,394	59.0	84,984	57.3	8.2	0.4	279,747	25.6

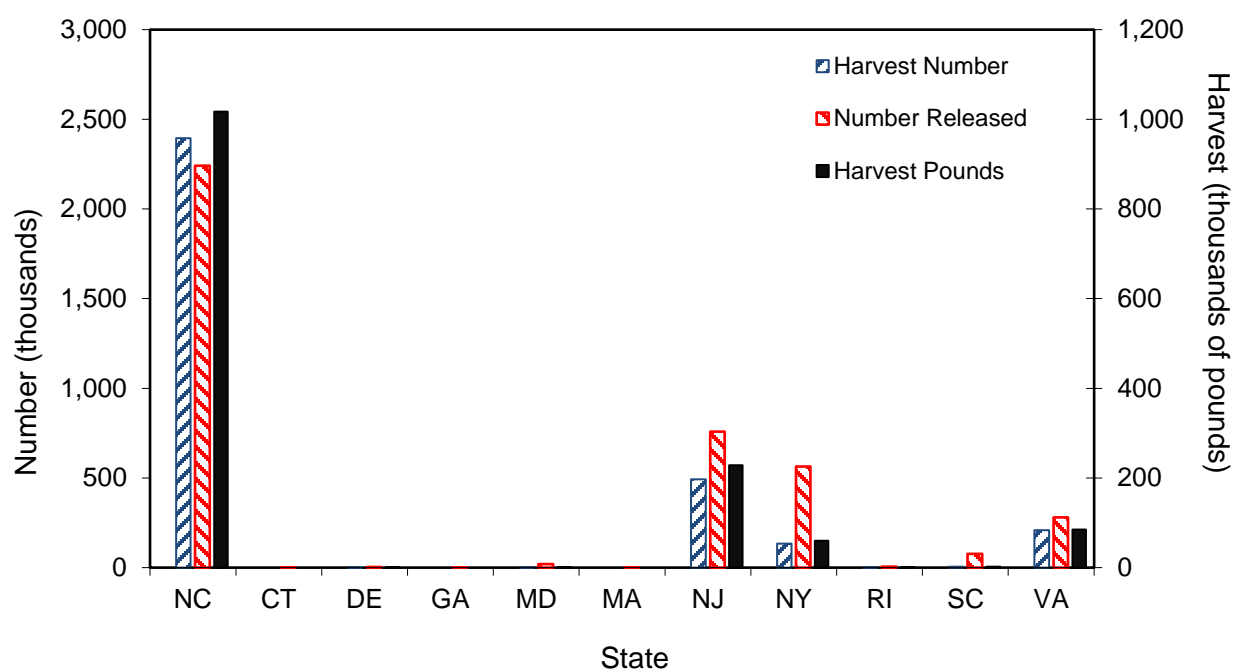


Figure III.30 Northern Puffer recreational catch by state, 2019.

Table III.36 Pigfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	432,005	21.9	146,570	21.0	8.0	0.3	1,639,294	30.6
2018	418,174	21.5	163,686	21.4	8.3	0.4	1,385,059	15.4
2017	656,096	27.6	218,003	27.8	8.0	0.3	2,025,949	20.3
2016	1,316,198	22.8	443,062	23.7	8.0	0.3	2,452,668	14.2
2015	1,593,393	24.6	567,572	24.5	8.2	0.4	3,332,936	13.6
2014	1,278,934	26.7	354,667	24.1	7.2	0.3	2,764,971	16.8
2013	905,659	16.1	293,508	15.2	7.9	0.3	1,914,017	13.1
2012	1,098,940	18.8	417,432	18.3	7.9	0.4	1,793,064	9.8
2011	853,482	18.4	268,432	19.2	7.8	0.3	2,316,470	11.7
2010	552,530	17.8	180,599	18.2	7.8	0.3	2,394,225	13.3
2009	1,074,061	61.2	443,288	64.8	8.3	0.4	1,857,462	15.9
2008	478,273	21.6	141,247	24.0	7.8	0.3	1,502,518	23.5
2007	719,365	25.6	230,770	26.6	8.1	0.3	1,430,793	18.5
2006	662,750	23.8	265,398	23.6	8.2	0.4	968,477	19.1
2005	1,160,195	42.0	576,835	48.1	8.8	0.5	1,161,855	20.6
2004	696,142	26.1	282,523	25.3	8.9	0.4	1,739,120	16.9
2003	1,537,595	20.2	602,742	20.5	8.4	0.4	1,638,238	12.7
2002	1,039,007	32.8	361,066	39.5	8.2	0.3	1,363,433	25.0
2001	975,513	27.3	337,779	23.5	8.1	0.3	1,273,575	16.9
2000	1,381,170	42.3	638,461	42.7	8.6	0.5	1,511,814	12.1

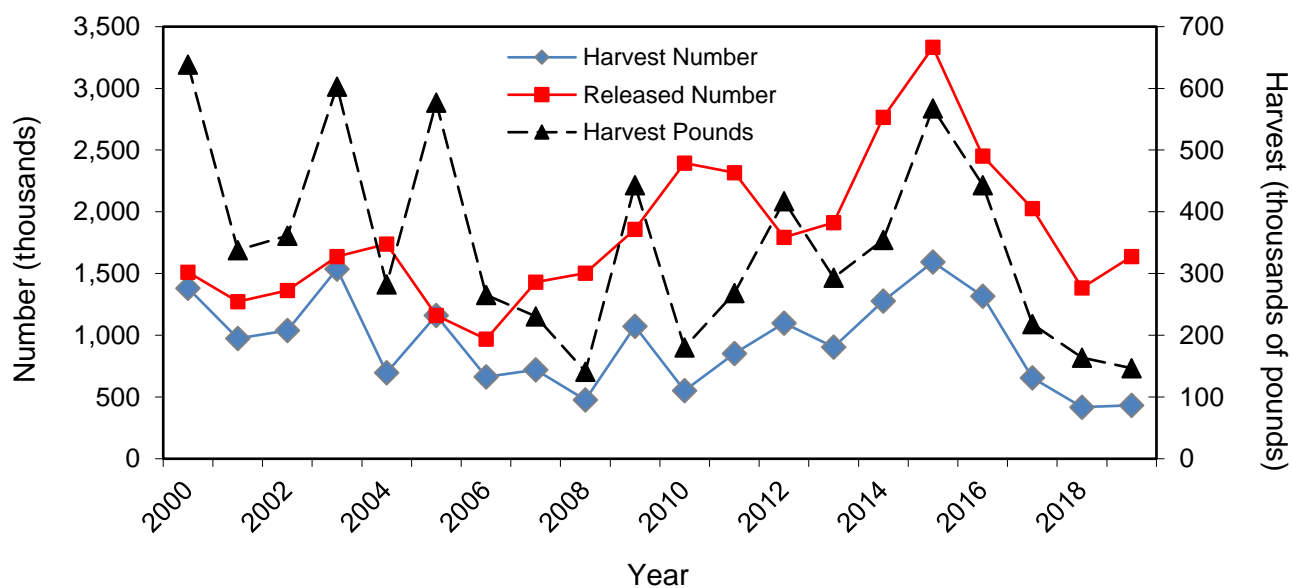


Figure III.31 Pigfish recreational catch in North Carolina by year.

Table III.37 Pigfish recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	432,005	21.9	146,570	21.0	8.0	0.3	1,639,294	30.6
Florida	221,733	52.8	75,012	48.5	8.4	0.4	293,484	47.6
Georgia	41,270	56.2	13,303	54.6	7.8	0.3	21,008	50.4
Maryland	832	101.4	230	101.2	7.2	0.3	15	109.8
South Carolina	22,164	34.7	7,883	35.6	7.7	0.4	55,793	38.7
Virginia	74,598	56.1	21,147	62.3	7.4	0.3	394,170	38.9

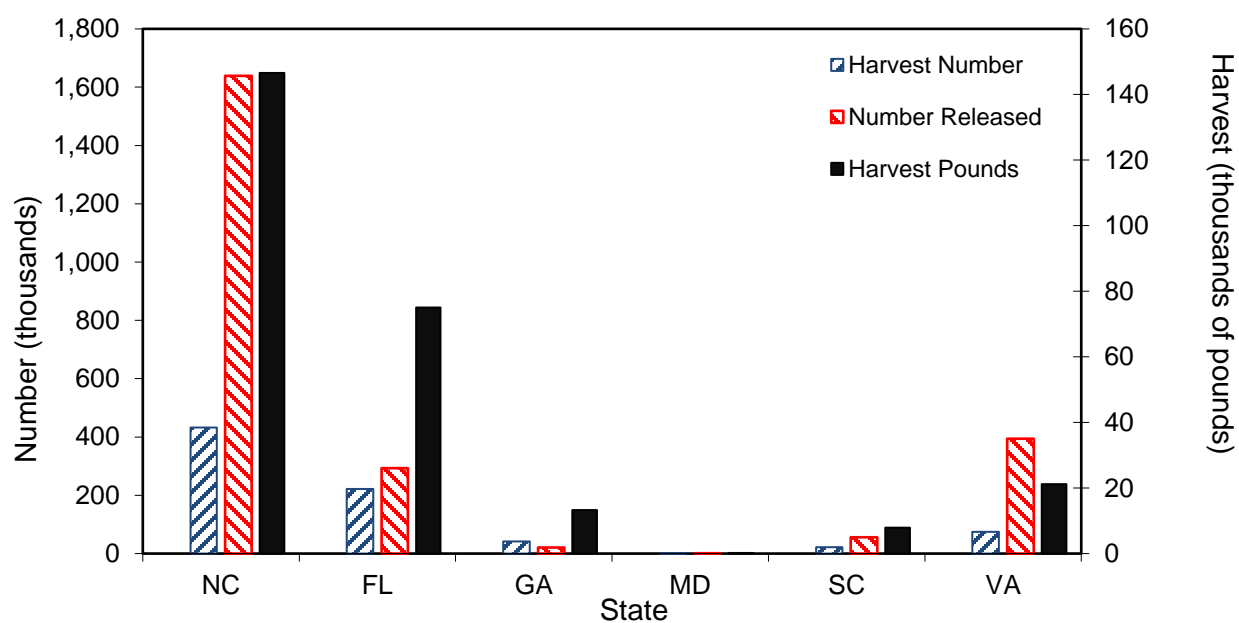


Figure III.32 Pigfish recreational catch by state, 2019.

Table III.38 Pinfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	955,550	24.7	217,718	24.2	6.6	0.2	9,076,843	11.1
2018	886,712	18.7	188,046	18.6	6.4	0.2	9,646,310	10.7
2017	917,956	24.3	283,455	23.7	6.9	0.3	13,677,930	16.8
2016	1,236,741	19.9	246,720	19.7	6.4	0.2	16,905,448	13.6
2015	1,597,032	20.6	449,239	24.5	6.8	0.3	14,915,393	11.4
2014	1,453,062	17.2	281,547	15.8	6.1	0.2	19,323,896	10.7
2013	1,385,301	15.8	269,250	17.0	6.5	0.2	10,455,850	9.4
2012	1,015,905	14.6	165,384	13.9	5.7	0.2	11,864,052	8.7
2011	836,412	17.0	159,057	16.5	6.4	0.2	8,823,604	9.4
2010	757,425	14.8	122,854	14.3	6.0	0.2	10,754,559	8.6
2009	597,710	21.1	124,101	21.9	6.4	0.2	7,795,965	11.5
2008	640,886	22.5	142,016	21.2	6.6	0.2	6,799,842	10.6
2007	266,392	28.2	58,827	28.0	6.6	0.2	6,526,964	11.0
2006	435,252	28.2	94,334	25.1	7.0	0.2	9,116,690	15.1
2005	341,742	23.3	78,975	23.1	6.9	0.2	4,732,265	13.1
2004	593,170	51.9	140,151	53.1	6.3	0.2	7,921,980	11.3
2003	907,567	20.4	292,269	21.5	7.3	0.3	10,849,405	11.8
2002	935,556	20.6	208,331	20.5	6.9	0.2	11,286,432	11.5
2001	1,184,602	24.0	343,875	26.3	7.2	0.3	8,765,316	12.4
2000	1,538,661	23.7	507,292	25.6	7.1	0.3	8,768,301	9.8

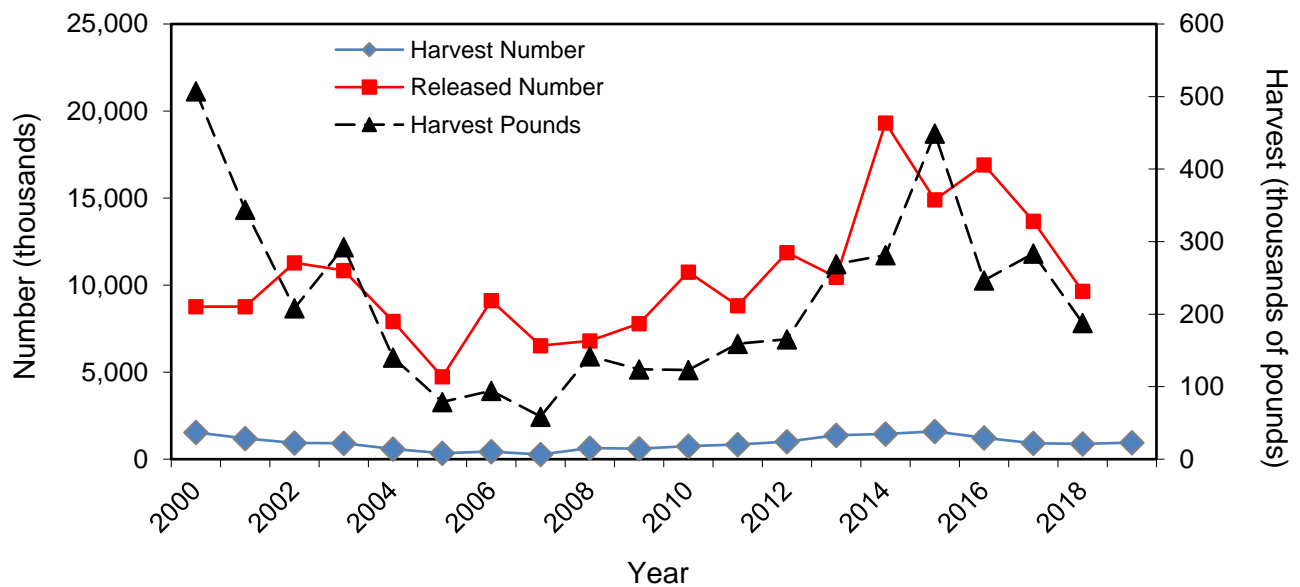


Figure III.33 Pinfish recreational catch in North Carolina by year.

Table III.39 Pinfish recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	955,550	24.7	217,718	24.2	6.6	0.2	9,076,843	11.1
Connecticut	103	97.4	-	-	-	-	-	-
Florida	680,475	22.2	108,332	22.3	7.3	0.4	1,791,288	19.6
Georgia	17,561	88.0	4,374	85.8	6.7	0.2	74,320	62.0
Maryland	10	19.7	9	19.7	10.5	0.9	2,597	105.4
New Jersey	776	93.2	440	93.2	8.2	0.6	172	99.2
South Carolina	150,084	27.0	39,377	26.0	6.7	0.3	3,861,951	24.0
Virginia	7,682	80.8	1,719	79.8	6.5	0.2	21,784	48.2

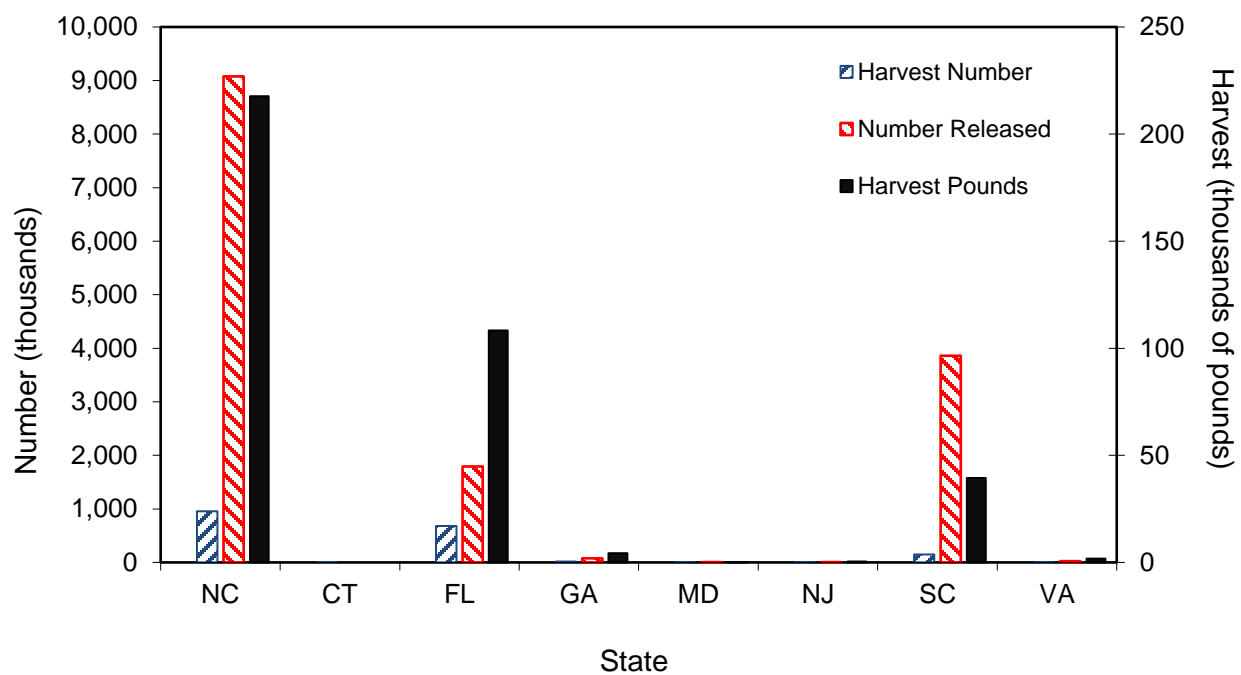


Figure III.34 Pinfish recreational catch by state, 2019.

Table III.40 Red Drum recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	97,186	22.8	436,219	24.2	21.5	4.5	2,976,601	17.4
2018	299,577	19.1	1,452,358	18.6	22.7	4.8	1,729,260	15.3
2017	353,716	17.0	1,475,852	18.0	21.4	4.2	2,165,656	13.0
2016	169,195	22.1	633,496	18.4	20.1	3.7	3,203,452	30.5
2015	143,876	24.5	567,730	26.1	20.7	3.9	1,308,072	27.2
2014	324,303	18.8	1,674,595	18.2	22.9	5.2	1,086,967	13.3
2013	520,758	13.3	2,214,045	13.9	21.7	4.3	1,892,171	11.6
2012	152,005	13.1	648,342	12.6	21.1	4.3	4,939,534	11.4
2011	156,484	16.7	737,853	18.1	21.9	4.7	587,369	13.4
2010	179,828	12.2	835,143	12.8	22.0	4.6	1,670,693	10.1
2009	214,317	18.8	1,028,339	18.6	22.5	4.8	1,238,158	16.0
2008	112,938	17.4	523,607	18.6	22.0	4.6	1,510,133	14.4
2007	157,577	15.2	789,430	14.8	22.6	5.0	818,037	13.9
2006	127,412	17.5	569,699	18.9	21.2	4.5	1,042,564	15.2
2005	103,275	19.9	470,914	22.1	21.8	4.6	967,892	37.5
2004	58,543	26.0	245,163	29.7	21.1	4.2	369,326	13.3
2003	73,202	18.9	359,181	19.1	21.8	4.9	215,277	18.1
2002	127,559	19.6	571,102	21.0	21.4	4.5	1,515,679	17.2
2001	57,929	18.1	290,901	18.6	22.4	5.0	538,370	20.1
2000	127,165	16.1	655,251	16.9	22.4	5.2	443,747	18.6

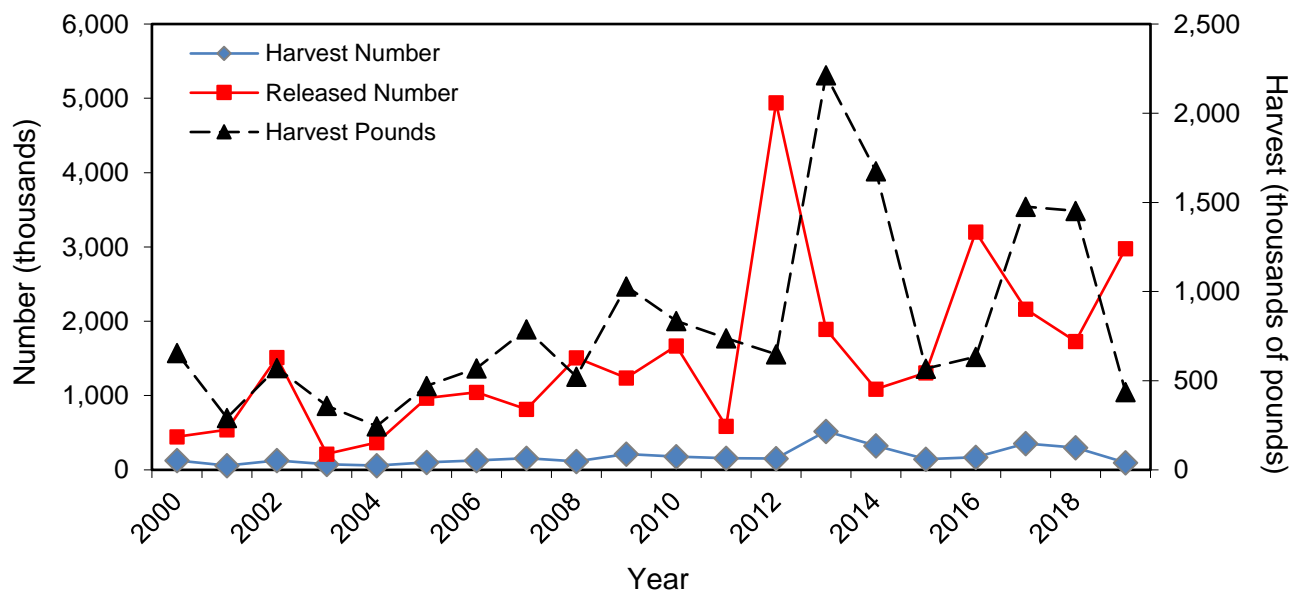


Figure III.35 Red Drum recreational catch in North Carolina by year.

Table III.41 Red Drum recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	97,186	22.8	436,219	24.2	21.5	4.5	2,976,601	17.4
Delaware	-	-	-	-	-	-	474	68.9
Florida	599,348	14.0	2,372,773	14.6	21.0	3.9	3,688,884	14.4
Georgia	271,970	23.3	630,294	22.2	17.1	2.3	1,206,707	24.6
Maryland	1,258	73.6	2,113	88.4	15.4	1.7	5,740	63.5
New Jersey	1,331	103.5	4,107	103.5	19.0	3.1	-	-
South Carolina	333,315	23.1	862,124	23.6	18.2	2.6	2,911,653	18.8
Virginia	205,824	36.9	470,940	36.3	16.1	2.3	865,957	38.3

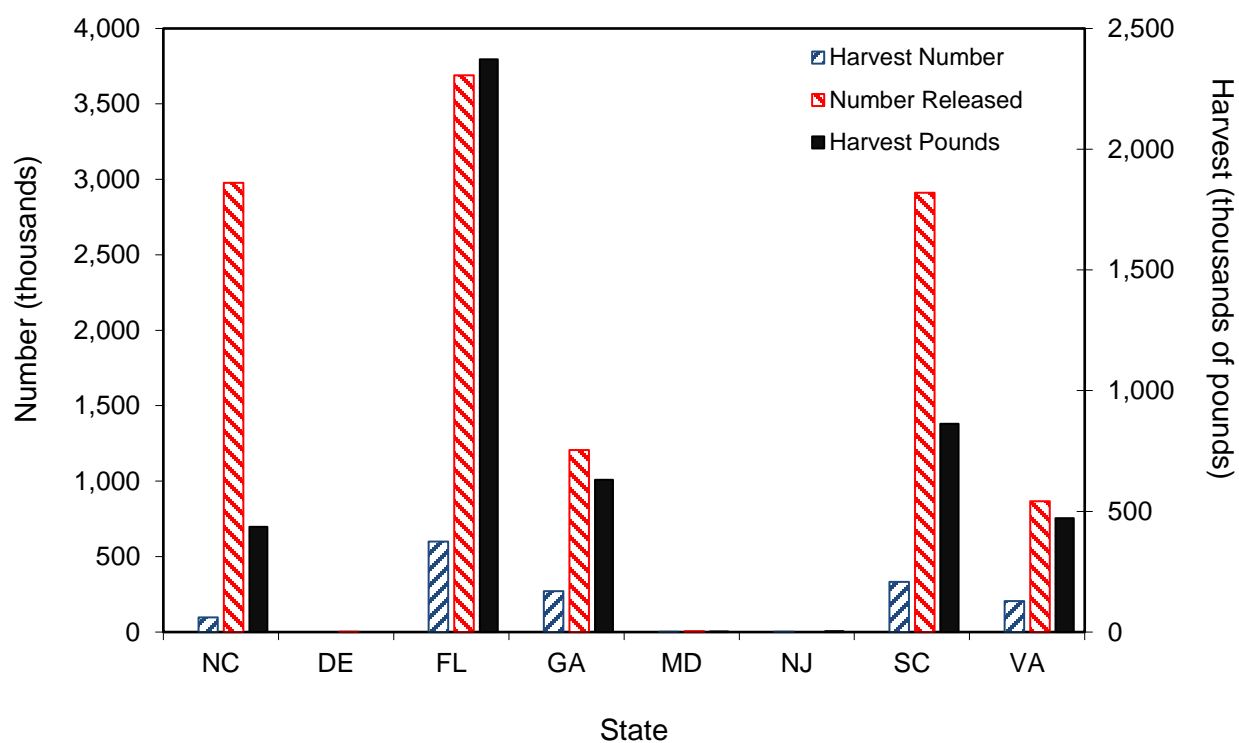


Figure III.36 Red Drum recreational catch by state, 2019.

Table III.42 Sheephead recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	221,419	21.7	590,150	24.7	13.9	2.7	312,479	26.2
2018	343,772	22.5	735,738	20.1	12.8	2.1	524,967	17.7
2017	282,480	19.4	810,633	19.6	13.9	2.9	910,841	22.7
2016	149,085	26.2	375,328	25.3	13.8	2.5	212,471	23.2
2015	181,554	22.2	520,382	20.8	14.2	2.9	160,447	22.6
2014	185,267	20.4	389,583	20.8	12.6	2.1	224,062	20.4
2013	784,747	20.1	1,220,357	15.9	11.1	1.6	391,809	20.3
2012	346,609	15.8	797,963	19.3	12.7	2.3	269,226	23.2
2011	196,844	25.6	522,896	30.1	13.9	2.7	78,821	26.0
2010	327,223	17.6	966,467	19.5	14.4	3.0	190,823	22.3
2009	362,439	23.3	577,311	23.8	11.4	1.6	299,221	25.2
2008	503,666	30.2	1,007,914	33.8	11.9	2.0	172,604	22.4
2007	433,872	30.1	1,456,396	29.5	14.9	3.4	334,014	34.2
2006	137,312	32.8	445,182	33.4	14.8	3.2	90,502	45.3
2005	87,504	40.0	340,227	41.9	16.2	3.9	65,863	80.5
2004	86,554	23.8	453,372	26.4	16.9	5.2	40,263	44.6
2003	294,989	23.4	983,640	25.2	14.5	3.3	85,877	31.8
2002	181,197	23.2	781,567	25.0	16.0	4.3	68,317	24.4
2001	183,781	28.6	654,527	30.0	15.2	3.6	66,594	38.5
2000	355,192	21.0	780,622	20.6	13.1	2.2	94,963	28.2

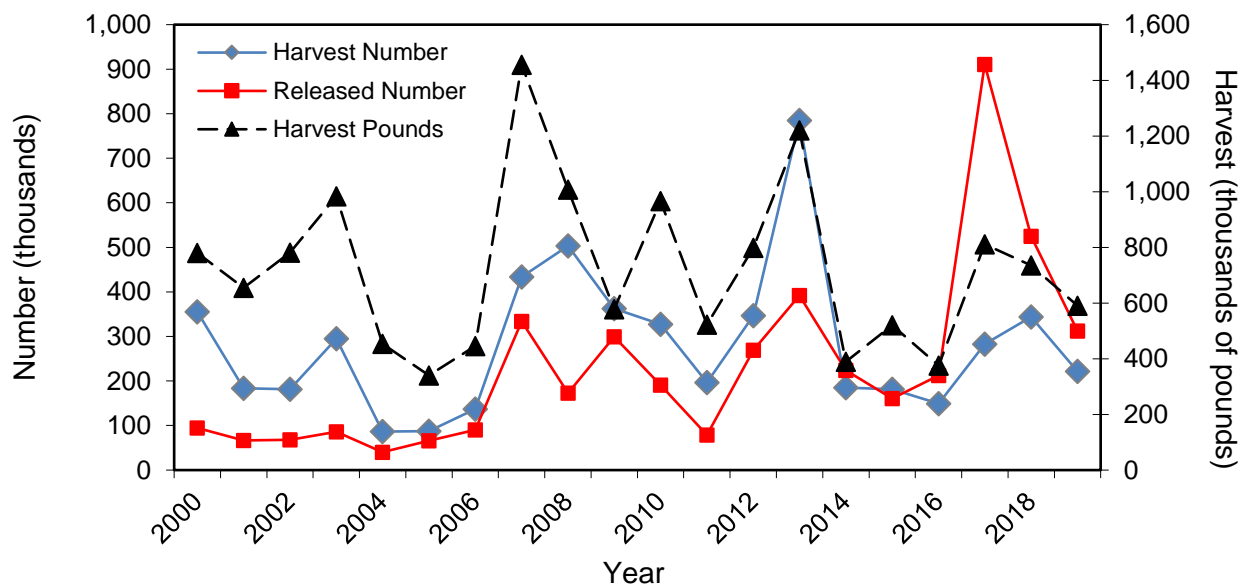


Figure III.37 Sheephead recreational catch in North Carolina by year.

Table III.43 Sheepshead recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	221,419	21.7	590,150	24.7	13.9	2.7	312,479	26.2
Delaware	8,879	84.4	42,790	86.6	16.1	4.8	703	103.6
Florida	1,133,132	20.7	2,642,470	19.7	13.4	2.2	1,453,465	21.1
Georgia	151,913	30.0	319,260	33.1	12.9	2.1	212,307	56.2
Maryland	7,233	42.8	56,773	50.7	19.3	7.8	-	-
South Carolina	164,298	27.7	615,724	28.9	15.7	3.7	532,766	35.1
Virginia	45,979	53.6	75,760	54.0	12.2	1.6	1,567	71.8

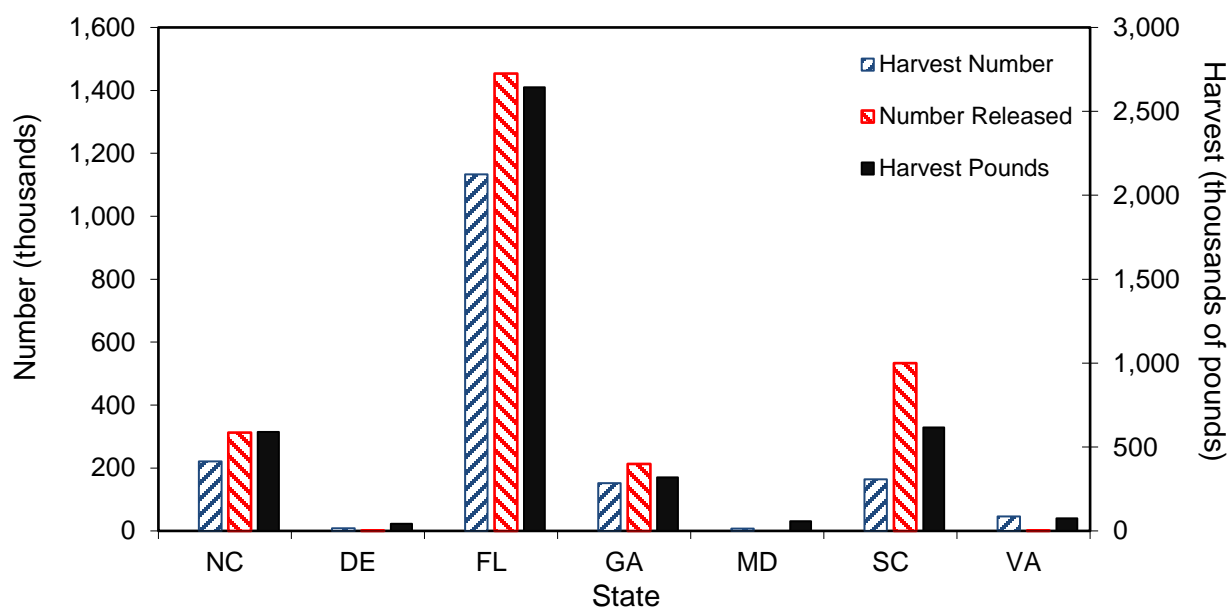


Figure III.38 Sheepshead recreational catch by state, 2019.

Table III.44 Silver Perch recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	32,444	49.2	7,520	39.9	6.9	0.2	244,868	29.6
2018	6,595	54.9	1,594	53.7	7.4	0.2	84,721	38.8
2017	133,676	44.2	24,532	45.1	7.3	0.2	441,052	36.7
2016	55,040	46.5	11,275	47.5	7.5	0.2	499,616	25.7
2015	41,707	64.7	8,832	64.9	7.6	0.2	98,138	36.2
2014	91,219	57.8	19,567	56.0	7.1	0.2	561,115	55.5
2013	60,246	39.7	10,662	37.1	6.7	0.2	227,334	32.2
2012	115,122	46.6	17,358	40.8	7.1	0.2	297,961	22.8
2011	112,595	45.3	25,729	53.3	7.2	0.2	219,913	24.8
2010	28,366	43.7	7,800	43.9	7.6	0.3	337,774	31.6
2009	92,414	52.1	28,241	55.5	8.0	0.3	479,403	61.3
2008	28,028	42.4	5,911	43.8	8.0	0.2	101,691	42.2
2007	372,042	58.9	64,738	60.3	6.5	0.2	1,288,217	26.3
2006	96,074	42.3	17,550	43.3	7.4	0.2	469,055	29.5
2005	80,394	74.8	25,698	71.1	8.7	0.3	158,168	45.2
2004	23,639	35.3	5,642	35.6	8.1	0.2	124,740	48.8
2003	182,504	59.9	43,470	58.7	8.0	0.2	87,483	34.4
2002	73,418	51.0	15,470	52.9	7.2	0.2	99,484	37.2
2001	51,060	40.1	14,117	41.0	7.8	0.3	107,180	34.5
2000	176,755	55.2	39,011	51.7	8.0	0.2	528,300	66.8

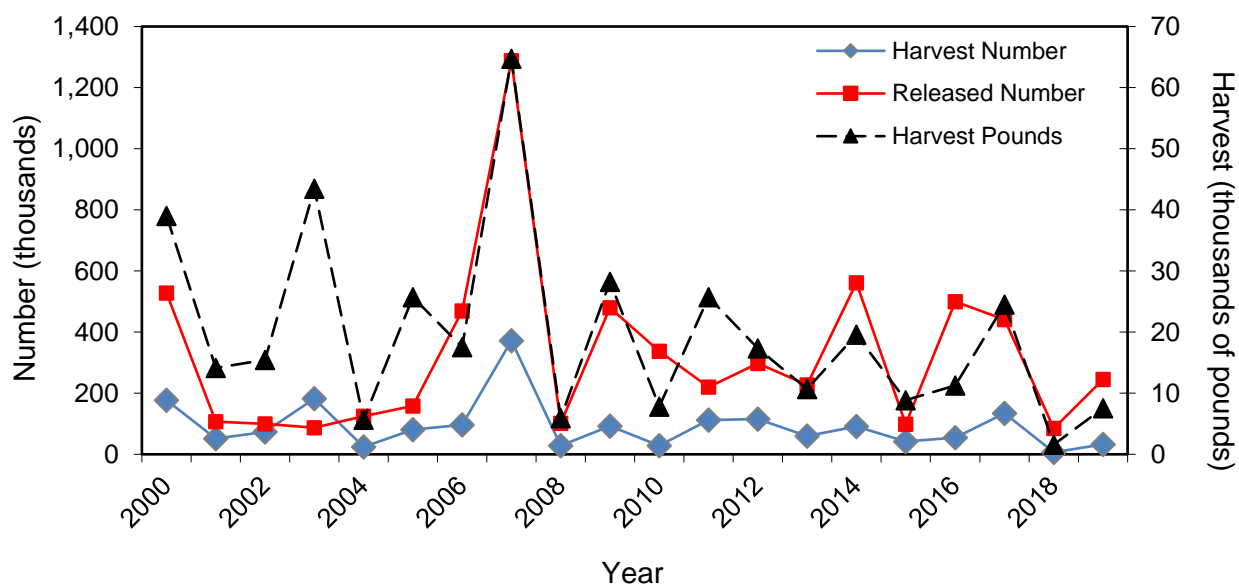


Figure III.39 Silver Perch recreational catch in North Carolina by year.

Table III.45 Silver Perch recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	32,444	49.2	7,520	39.9	6.9	0.2	244,868	29.6
Florida	188,200	93.5	38,592	92.5	7.9	0.2	4,612	101.5
Georgia	115,524	72.7	24,359	71.8	5.8	0.2	863,525	33.7
Maryland	60,759	79.7	21,008	81.0	6.5	0.3	634,533	28.5
New Jersey	-	-	-	-	-	-	18,978	95.9
South Carolina	290,706	28.3	57,110	26.6	6.9	0.2	388,391	30.0
Virginia	181,815	61.3	28,624	61.1	7.2	0.2	207,145	56.1

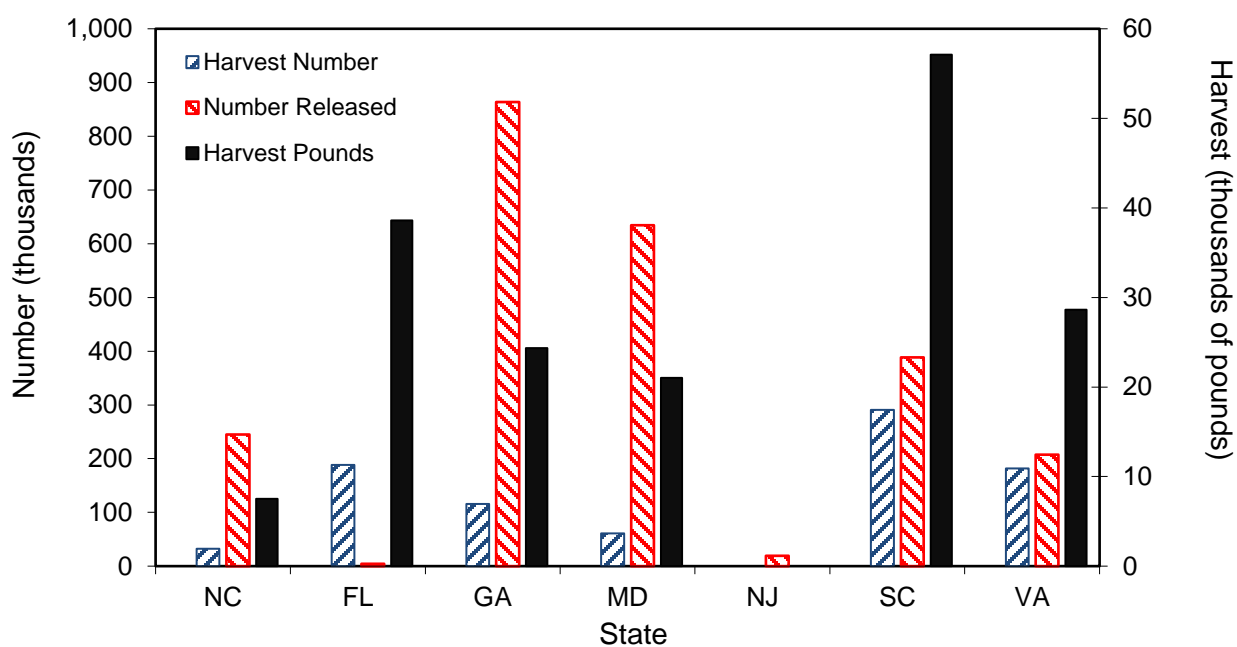


Figure III.40 Silver Perch recreational catch by state, 2019.

Table III.46 Southern Flounder recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ⁶	PSE (release) ⁶
2019	163,045	19.1	387,203	23.3	17.6	2.4	1,353,286	-
2018	217,805	19.3	495,289	18.5	17.2	2.3	1,002,753	-
2017	221,321	18.7	451,126	16.8	16.0	2.0	1,988,000	-
2016	299,273	16.1	695,713	16.7	16.4	2.3	2,178,145	-
2015	249,166	18.5	558,303	17.7	15.8	2.2	1,709,189	-
2014	209,228	17.0	447,337	16.9	16.1	2.1	1,856,280	-
2013	374,215	23.7	869,223	22.1	16.6	2.3	2,357,529	-
2012	290,035	10.6	701,698	10.8	16.5	2.4	2,434,621	-
2011	388,647	13.1	942,373	13.2	17.6	2.4	2,087,604	-
2010	556,812	11.5	1,149,899	11.6	17.0	2.1	2,835,142	-
2009	329,117	15.9	692,704	14.7	16.4	2.1	1,889,921	-
2008	349,860	16.2	807,867	16.5	16.8	2.3	2,532,079	-
2007	279,916	18.2	572,064	16.9	17.2	2.0	1,075,735	-
2006	352,942	17.9	761,069	21.8	16.8	2.2	1,287,601	-
2005	298,307	16.2	675,856	17.3	16.7	2.3	997,132	-
2004	347,492	15.2	827,593	18.4	17.5	2.4	1,537,924	-
2003	293,793	15.4	621,985	15.7	17.5	2.1	860,052	-
2002	366,671	13.6	789,539	15.0	17.4	2.2	1,415,247	-
2001	304,791	13.5	567,568	13.7	17.0	1.9	990,335	-
2000	326,712	28.0	607,053	24.3	17.1	1.9	942,560	-

⁶ Flounder releases are not recorded to species; released number was calculated by assigning a ratio of observed flounder by species to reported flounder genus release estimates. PSEs are not available for this analysis.

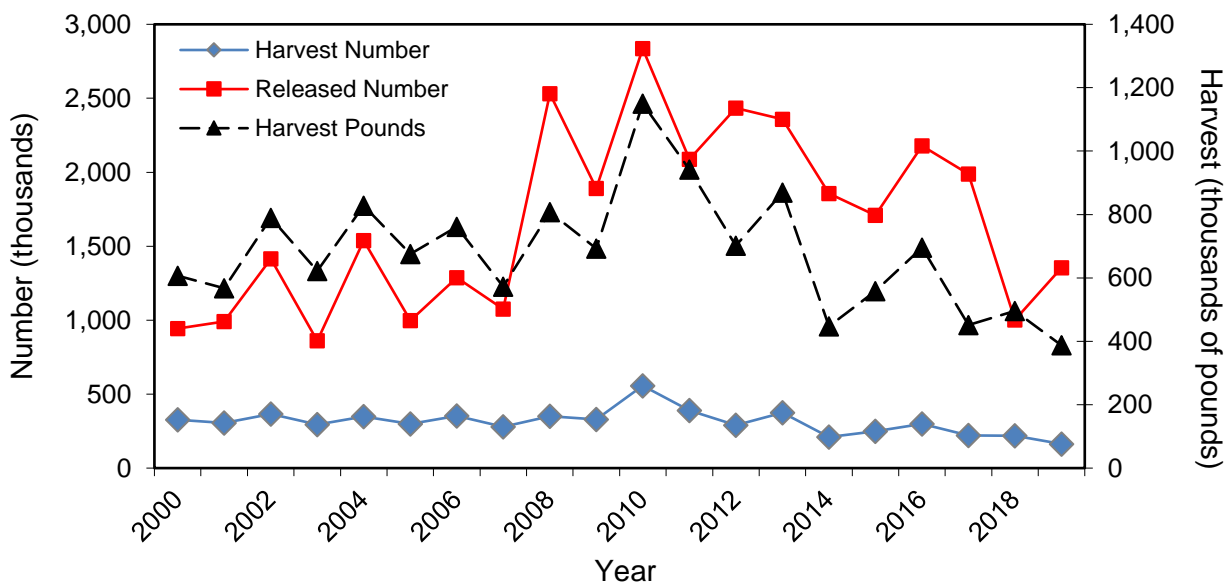


Figure III.41 Southern Flounder recreational catch in North Carolina by year.

Table III.47 Southern Flounder recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ⁷	PSE (release) ⁷
North Carolina	163,045	19.1	387,203	23.3	17.6	2.4	-	-
Florida	1,294,158	26.7	2,202,748	27.0	15.5	1.7	-	-
Georgia	96,651	22.4	148,327	24.9	14.9	1.5	-	-
South Carolina	114,115	24.5	241,047	24.4	17.0	2.1	-	-
Virginia	485	101.0	1,336	101.0	18.4	2.8	-	-

⁷ Released flounder are not always recorded to species level. Numbers released are not shown by state.

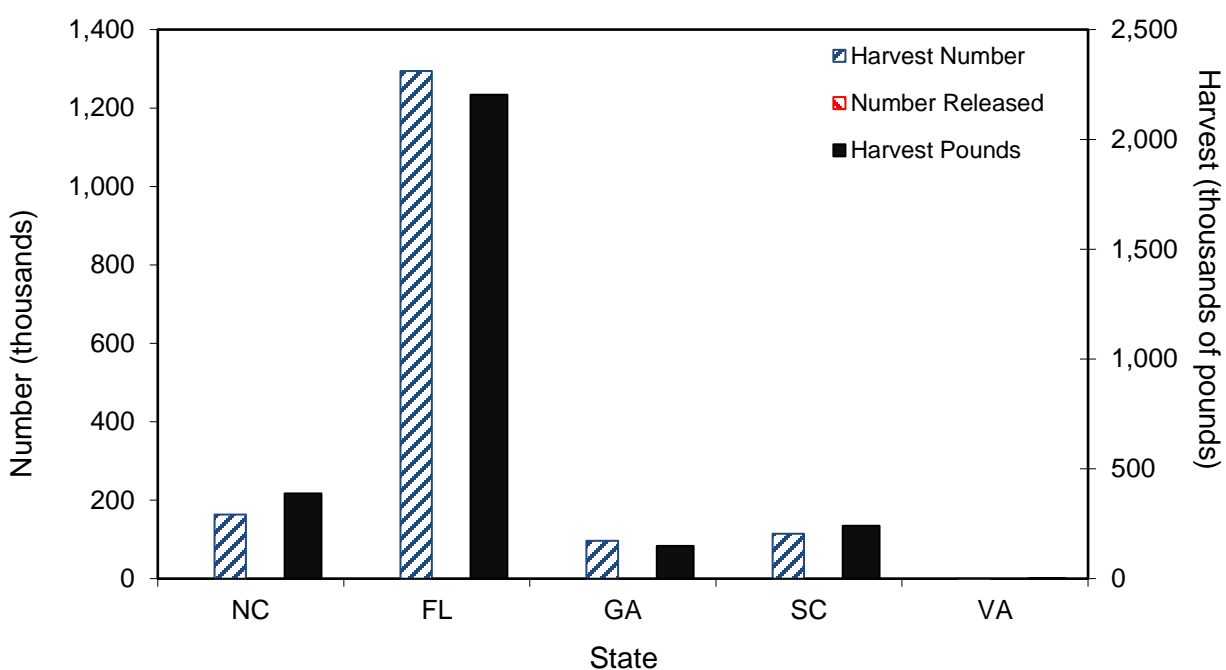


Figure III.42 Southern Flounder recreational catch by state, 2019.

Table III.48 Southern Kingfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ¹	PSE (release) ⁴
2019	767,259	29.0	439,552	23.8	11.0	0.6	2,183,265	-
2018	497,134	19.8	312,829	20.0	11.5	0.6	1,293,857	-
2017	1,116,869	23.0	584,459	22.4	11.0	0.5	2,994,666	-
2016	1,422,584	26.8	771,534	26.5	11.2	0.5	2,765,072	-
2015	2,103,634	30.0	1,138,715	28.2	10.8	0.5	5,501,449	-
2014	2,477,383	44.1	1,544,862	46.3	11.7	0.6	4,003,170	-
2013	2,021,612	19.4	959,787	17.8	10.4	0.5	4,471,609	-
2012	1,255,035	14.6	695,368	15.4	10.9	0.6	1,670,729	-
2011	1,075,153	16.2	570,239	16.9	11.0	0.5	1,604,093	-
2010	1,660,599	15.1	1,003,198	16.2	11.2	0.6	2,888,773	-
2009	1,848,709	22.5	1,017,152	25.4	10.9	0.6	3,414,288	-
2008	1,127,632	17.6	623,055	17.9	10.9	0.6	1,416,166	-
2007	809,793	20.9	422,405	19.5	10.9	0.5	1,202,664	-
2006	1,110,253	28.8	511,690	27.2	10.8	0.5	1,960,933	-
2005	977,260	21.6	536,532	20.6	11.1	0.5	1,328,501	-
2004	969,985	23.2	625,932	22.5	11.4	0.6	1,023,307	-
2003	678,724	19.8	462,481	21.4	11.2	0.7	1,045,686	-
2002	913,852	21.0	595,860	21.5	11.6	0.7	623,815	-
2001	1,562,340	22.6	836,967	22.6	11.0	0.5	825,114	-
2000	1,961,242	17.8	1,287,295	19.7	11.4	0.7	1,648,043	-

⁴ Kingfish releases are not recorded to species; released number was calculated by assigning a ratio of observed kingfish by species to reported kingfish genus release estimates. PSEs are not available for this analysis.

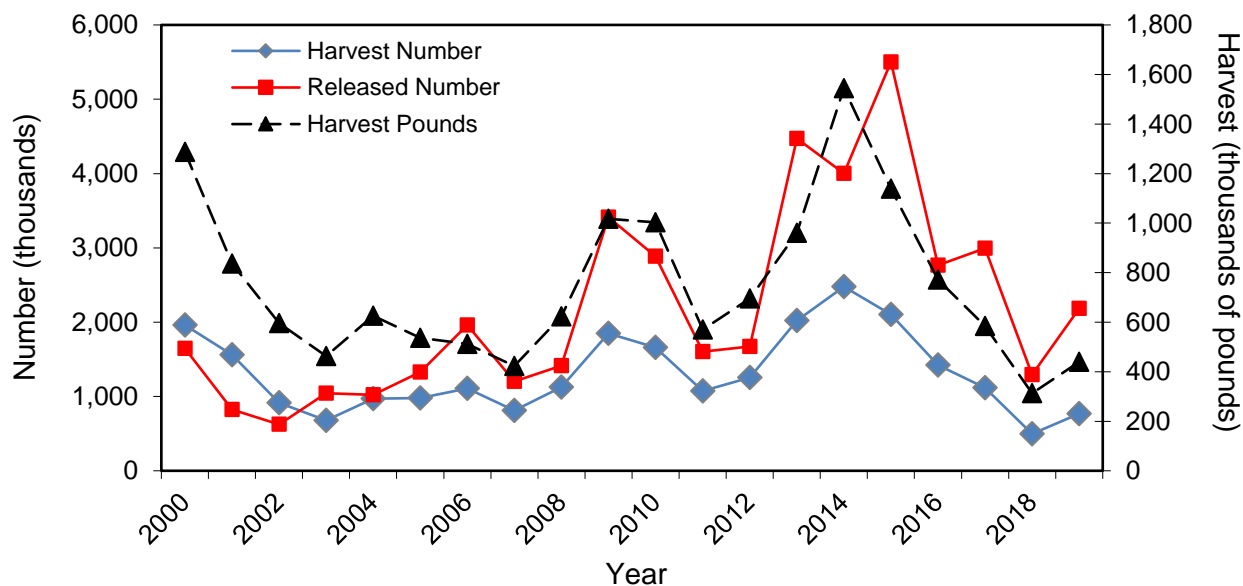


Figure III.43 Southern Kingfish recreational catch in North Carolina by year.

Table III.49 Southern Kingfish recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ⁵	PSE (release) ⁵
North Carolina	767,259	29.0	439,552	23.8	11.0	0.6	-	-
Delaware	3,852	55.4	1,785	52.1	10.4	0.5	-	-
Florida	911,999	34.9	619,630	27.7	11.8	0.7	-	-
Georgia	2,507,027	16.8	1,094,839	15.7	10.2	0.4	-	-
Maryland	5,017	54.9	2,663	68.9	11.0	0.5	-	-
New Jersey	122,368	57.9	64,069	63.9	10.5	0.5	-	-
New York	5,608	101.4	2,473	101.4	9.1	0.4	-	-
South Carolina	895,889	18.2	514,300	19.6	11.0	0.6	-	-
Virginia	862,128	30.9	509,176	34.7	11.1	0.6	-	-

⁵ Released kingfish are not always recorded to species level. Numbers released are not shown by state.

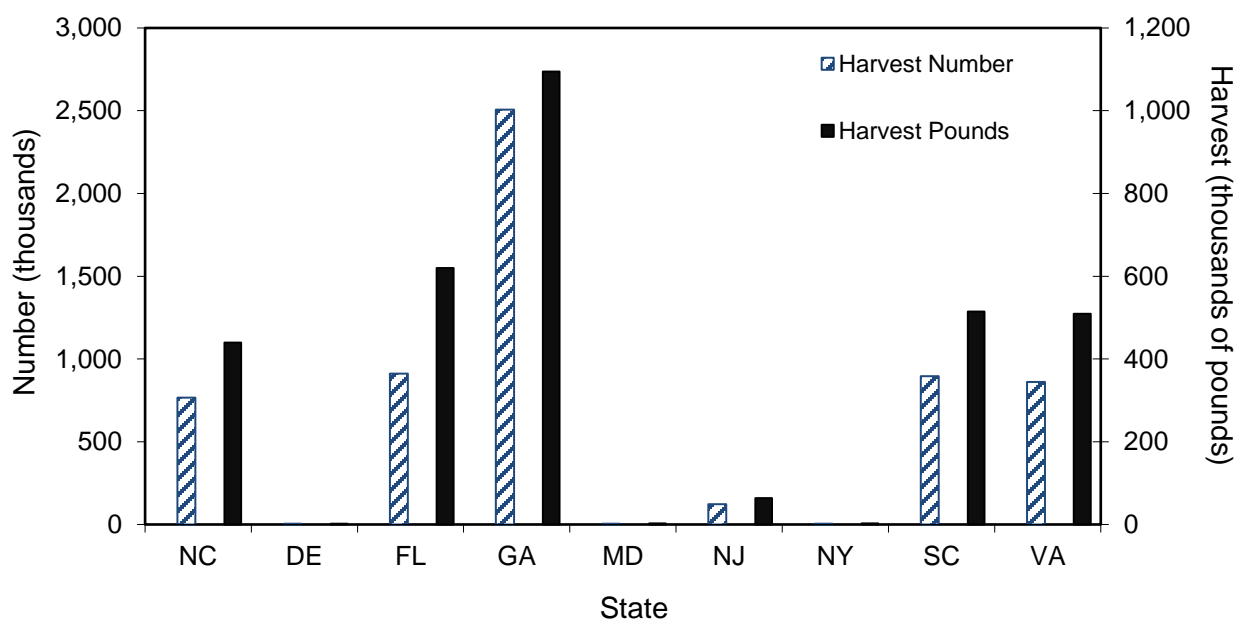


Figure III.44 Southern Kingfish recreational catch by state, 2019.

Table III.50 Spanish Mackerel recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	1,478,890	19.6	1,694,247	22.4	15.0	1.1	1,340,366	21.8
2018	1,012,889	13.9	1,156,702	14.5	15.0	1.1	1,019,418	30.4
2017	995,706	18.0	1,094,778	18.3	14.8	1.1	688,062	21.4
2016	918,352	16.4	907,400	16.3	14.3	1.0	546,950	19.5
2015	835,011	14.3	981,867	15.6	14.7	1.2	514,714	17.7
2014	1,028,925	15.2	1,193,442	14.7	14.9	1.2	814,064	21.2
2013	994,599	15.2	1,242,029	16.5	15.1	1.2	685,692	26.1
2012	995,852	9.6	1,327,350	10.4	15.1	1.3	591,792	16.4
2011	854,554	15.0	1,100,110	20.0	15.0	1.3	479,586	15.5
2010	927,116	22.0	1,116,099	17.5	15.2	1.2	701,634	33.0
2009	1,480,931	13.5	2,155,692	19.4	15.8	1.5	752,806	20.7
2008	1,013,980	13.1	1,234,030	15.2	15.2	1.2	806,280	18.5
2007	604,518	15.2	799,263	16.5	15.4	1.3	340,027	16.5
2006	439,736	15.7	624,488	20.5	16.0	1.4	165,098	22.5
2005	561,073	16.1	526,054	16.6	14.6	0.9	303,641	19.9
2004	534,720	18.7	819,978	20.0	16.7	1.5	317,189	26.9
2003	540,399	15.3	641,024	14.5	14.8	1.2	266,887	17.1
2002	787,125	17.1	987,238	16.1	15.3	1.3	309,546	16.9
2001	942,500	25.0	1,155,788	24.7	15.5	1.2	338,918	37.0
2000	1,102,777	17.7	1,175,351	19.3	15.2	1.1	451,910	19.2

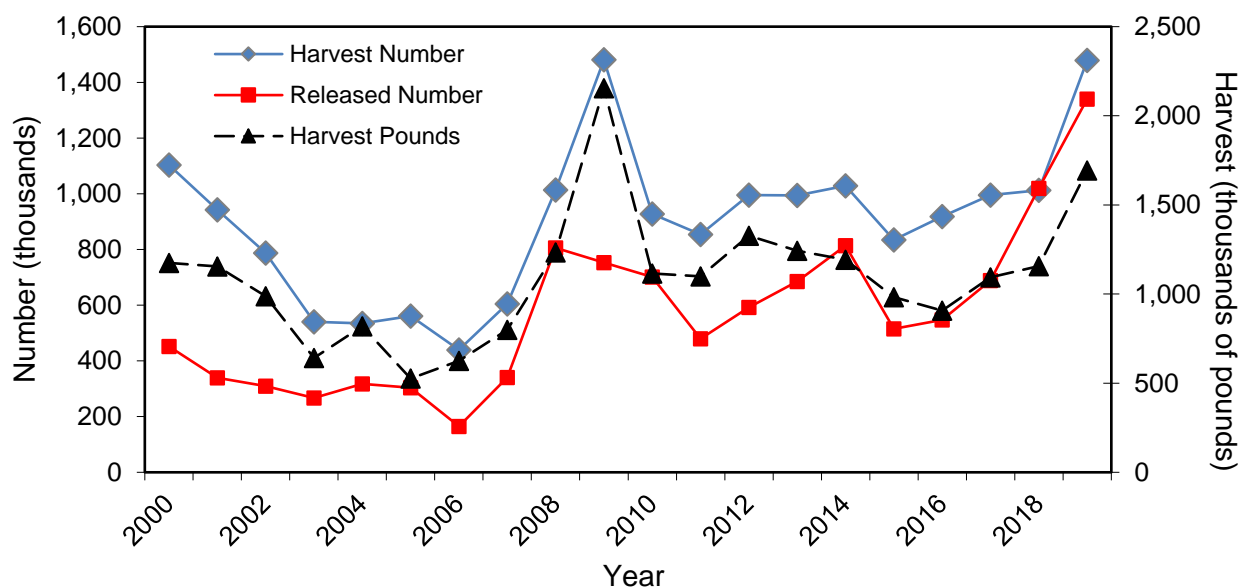


Figure III.45 Spanish Mackerel recreational catch in North Carolina by year.

Table III.51 Spanish Mackerel recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	1,478,890	19.6	1,694,247	22.4	15.0	1.1	1,340,366	21.8
Connecticut	-	-	-	-	-	-	4,731	57.4
Delaware	1,396	86.0	1,300	81.9	12.5	0.9	2,334	100.9
Florida	623,415	24.4	1,011,804	24.4	16.4	1.5	652,727	24.4
Georgia	138,756	45.1	348,469	51.1	19.5	2.5	14,943	45.4
Maryland	109,007	25.7	181,994	27.5	16.3	1.7	62,881	41.0
Massachusetts	335	88.9	591	88.9	18.0	1.8	-	-
New Jersey	8,787	47.2	17,558	51.1	17.6	2.0	60,003	70.2
New York	21,031	101.5	30,177	101.3	16.3	1.4	49,390	73.1
South Carolina	1,046,972	15.8	847,163	16.2	13.5	0.8	1,588,754	23.8
Virginia	587,683	23.1	718,353	27.5	15.3	1.2	536,244	25.6

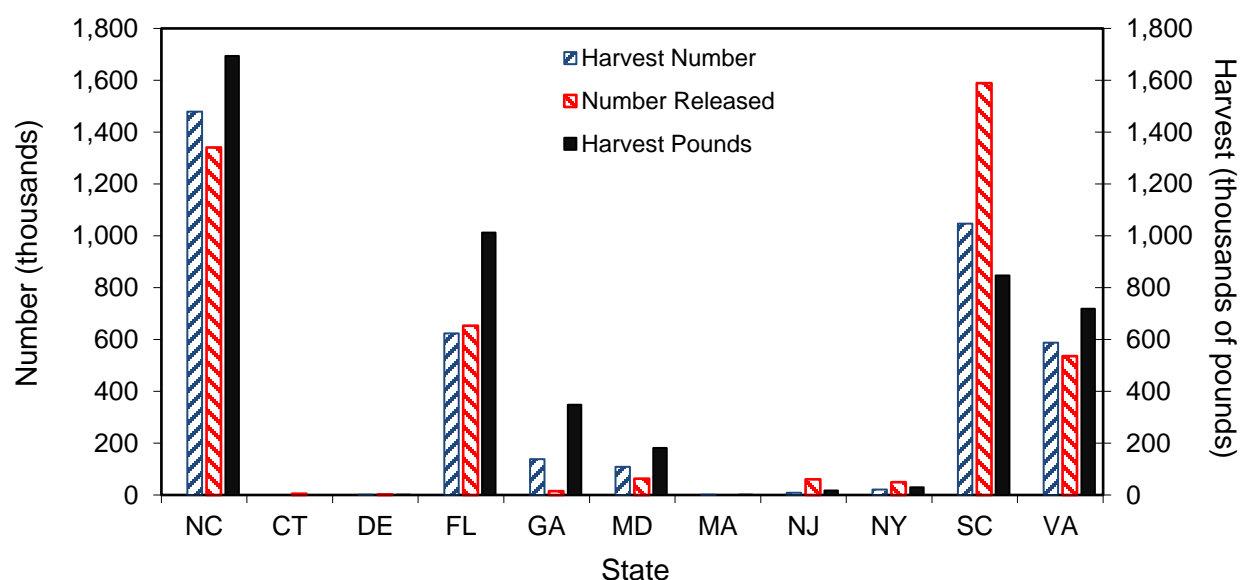


Figure III.46 Spanish Mackerel recreational catch by state, 2019.

Table III.52 Spot recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	2,822,884	27.6	851,998	27.7	7.7	0.3	2,356,120	27.3
2018	2,068,865	24.3	597,511	24.2	8.4	0.3	2,062,163	19.4
2017	2,418,331	44.8	909,796	50.8	8.1	0.4	1,902,281	28.2
2016	1,928,716	25.3	558,799	25.3	7.9	0.3	1,831,415	22.0
2015	2,572,738	19.6	833,390	20.6	8.1	0.3	2,984,629	15.3
2014	8,343,467	23.9	2,877,483	25.9	8.2	0.3	4,043,710	12.5
2013	6,120,985	15.7	1,789,251	17.5	7.9	0.3	5,513,732	12.1
2012	2,677,082	21.4	760,276	22.2	7.9	0.3	2,995,879	13.2
2011	6,480,714	19.5	2,201,947	20.7	8.2	0.3	4,993,544	11.5
2010	3,830,384	19.3	1,173,173	19.4	8.1	0.3	3,615,808	14.4
2009	4,197,640	20.3	1,427,956	20.1	8.4	0.3	4,847,202	12.6
2008	3,970,431	19.7	1,382,428	20.5	8.3	0.3	3,817,529	15.4
2007	8,728,295	21.3	2,737,144	20.9	9.1	0.3	4,049,250	17.3
2006	11,109,551	39.4	3,995,432	40.4	8.9	0.4	8,196,592	15.4
2005	10,105,205	19.2	3,652,186	19.8	8.4	0.4	4,407,100	16.2
2004	7,845,322	12.4	3,682,623	14.4	9.2	0.5	2,899,319	12.5
2003	9,717,824	17.7	4,220,534	17.3	8.7	0.4	2,970,990	13.0
2002	8,456,981	21.8	3,017,466	19.2	8.3	0.4	1,569,579	11.9
2001	10,043,845	15.1	4,519,545	15.9	8.8	0.4	2,804,349	16.2
2000	6,121,384	31.6	2,598,813	31.4	8.6	0.4	1,366,746	14.1

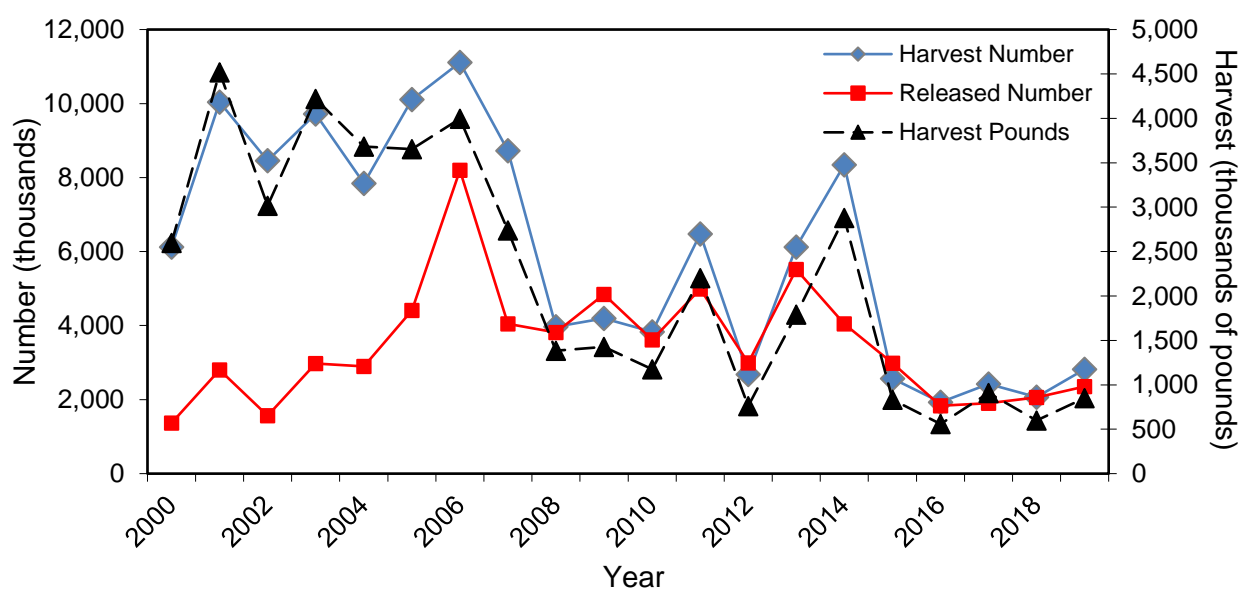


Figure III.47 Spot recreational catch in North Carolina by year.

Table III.53 Spot recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	2,822,884	27.6	851,998	27.7	7.7	0.3	2,356,120	27.3
Delaware	220,296	37.3	72,556	34.7	7.4	0.3	125,656	25.1
Florida	1,154,277	36.0	534,214	35.8	8.4	0.4	691,731	37.5
Georgia	97,526	44.9	24,107	42.0	7.5	0.2	234,016	32.2
Maryland	2,634,233	23.9	809,736	28.9	7.4	0.3	3,311,565	20.0
Massachusetts	-	-	-	-	-	-	23	104.7
New Jersey	108,765	95.4	13,451	96.9	6.5	0.1	21,801	70.8
New York	17,517	98.0	4,719	98.0	7.3	0.3	-	-
South Carolina	312,706	41.0	105,675	38.7	7.8	0.3	263,939	31.8
Virginia	7,647,077	22.4	2,283,558	23.8	7.7	0.3	4,509,930	22.0

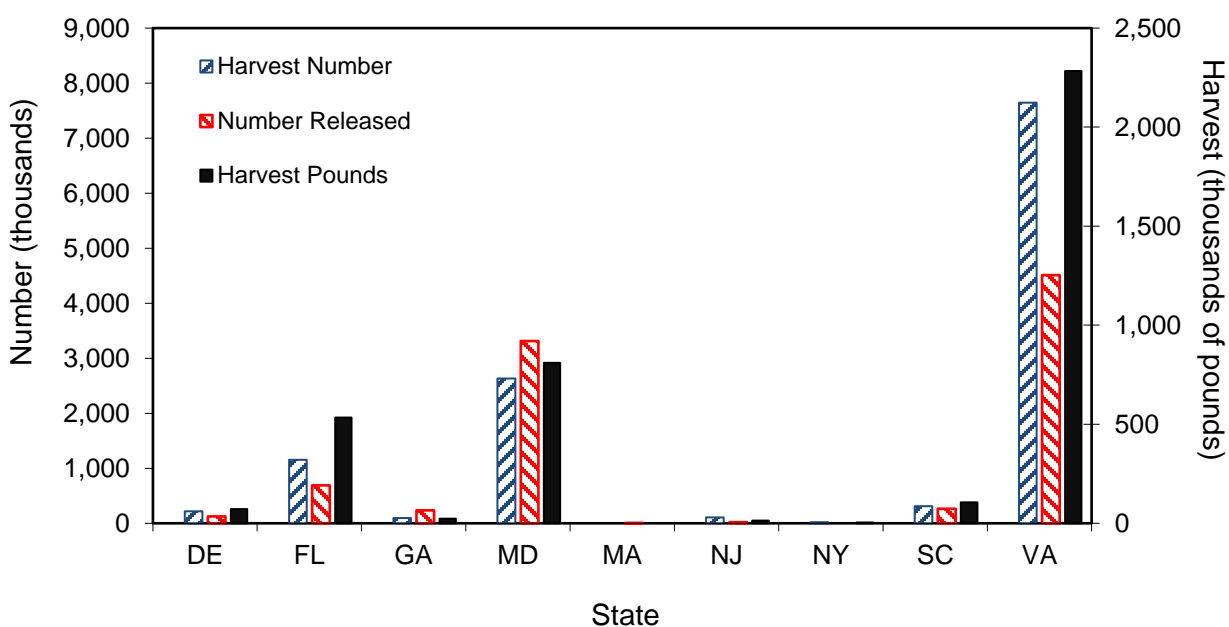


Figure III.48 Spot recreational catch by state, 2019.

Table III.54 Spotted Seatrout recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ⁸	PSE (release) ⁸
2019	1,937,250	11.4	3,334,163	11.6	16.7	1.7	7,185,562	-
2018	449,473	18.6	658,555	18.4	15.7	1.5	15,245,249	-
2017	1,217,834	14.8	2,157,198	14.8	17.0	1.8	5,151,510	-
2016	978,624	13.1	1,724,492	14.5	16.8	1.8	6,533,887	-
2015	249,260	21.9	430,579	22.6	16.9	1.7	4,883,109	-
2014	725,086	13.9	1,451,592	16.1	17.6	2.0	3,950,447	-
2013	1,107,957	11.9	1,881,881	12.1	16.8	1.7	4,312,436	-
2012	1,602,836	10.4	2,720,028	12.0	16.5	1.7	4,967,987	-
2011	723,502	11.2	1,353,388	11.5	17.0	1.9	7,486,377	-
2010	630,748	26.5	1,277,174	28.0	17.5	2.0	8,034,670	-
2009	1,857,890	16.8	2,878,160	16.5	16.0	1.5	5,369,092	-
2008	1,372,973	14.3	2,114,130	16.5	15.6	1.5	4,509,440	-
2007	1,241,296	14.8	1,998,275	14.2	15.9	1.6	3,558,110	-
2006	1,444,778	16.6	2,034,469	16.7	15.5	1.4	2,722,351	-
2005	1,517,647	31.9	1,695,036	26.5	14.2	1.1	3,744,921	-
2004	560,834	20.2	728,027	21.3	15.3	1.3	934,206	-
2003	388,715	20.8	515,678	19.5	14.7	1.3	903,292	-
2002	746,908	26.6	957,824	23.2	14.9	1.3	1,829,880	-
2001	499,556	16.7	659,893	18.0	14.9	1.3	1,210,336	-
2000	728,906	21.9	1,095,729	22.3	15.5	1.5	645,107	-

⁸ Seatrout releases are not always recorded to species level; released number was calculated by assigning a ratio of observed seatrout by species to reported seatrout genus release estimates. PSE are not available for this analysis.

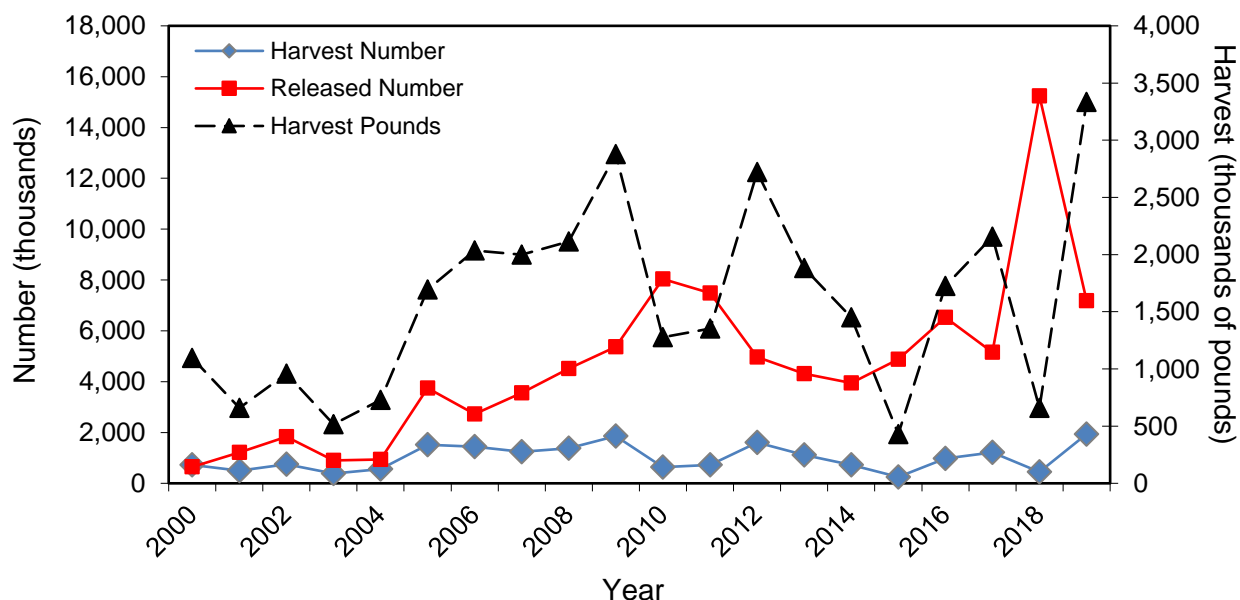


Figure III.49 Spotted Seatrout recreational catch in North Carolina by year.

Table III.55 Spotted Seatrout recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ⁹	PSE (release) ⁹
North Carolina	1,937,250	11.4	3,334,163	11.6	16.7	1.7	-	-
Delaware	4,644	106.2	10,878	106.2	18.3	2.3	-	-
Florida	620,337	18.7	1,033,847	18.0	16.7	1.6	-	-
Georgia	1,008,284	22.6	1,440,368	23.0	15.4	1.4	-	-
Maryland	36,314	50.8	61,935	51.1	16.5	1.7	-	-
South Carolina	813,548	27.2	1,238,834	30.0	16.1	1.5	-	-
Virginia	596,428	24.8	1,256,916	26.4	17.9	2.1	-	-

⁹ Released seatrout are not always recorded to species level. Numbers released are not shown by state.

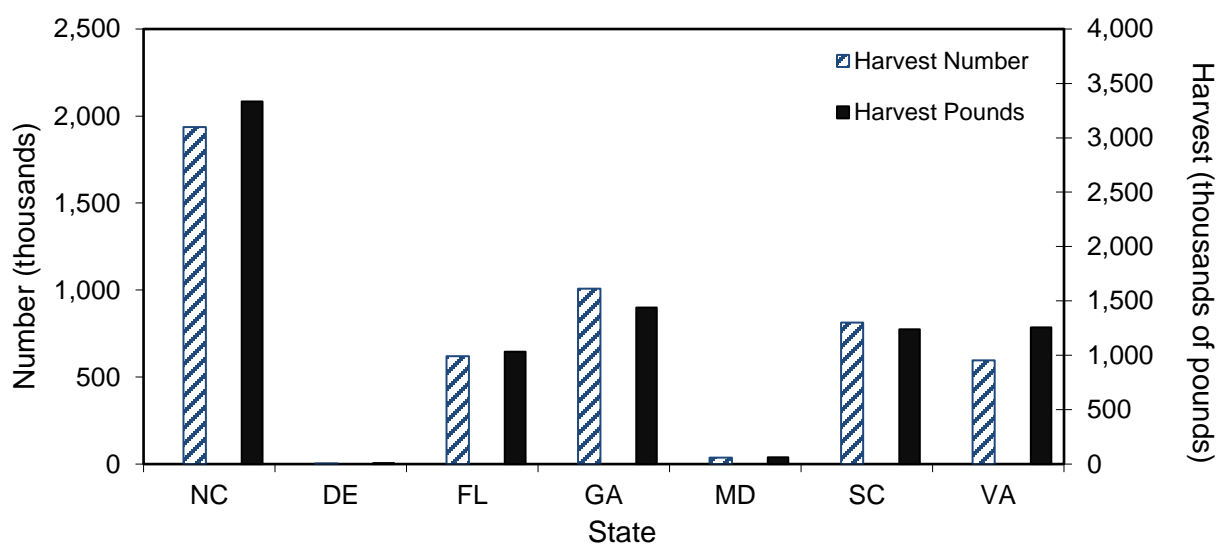


Figure III.50 Spotted Seatrout recreational catch by state, 2019.

Table III.56 Striped Bass¹⁰ recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	-	-	-	-	-	-	4,521	52.6
2018	25	99.1	366	99.1	-	-	15,850	47.6
2017	-	-	-	-	-	-	48,410	43.1
2016	4,177	102.0	15,961	102.0	-	-	84,545	41.0
2015	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	2,122	100.5
2013	-	-	-	-	-	-	5,840	63.6
2012	-	-	-	-	-	-	7,301	78.1
2011	207,610	20.1	4,467,159	19.9	35.9	21.5	234,250	27.7
2010	72,941	38.5	1,294,743	36.7	33.9	17.8	58,858	41.3
2009	6,548	46.8	186,729	45.6	39.6	28.5	16,857	66.7
2008	36,750	36.9	746,511	36.1	35.5	20.3	27,512	52.3
2007	79,668	33.9	1,921,009	34.3	38.3	24.4	28,088	40.4
2006	131,300	43.9	2,914,151	44.4	36.2	22.2	44,907	36.4
2005	200,468	23.0	4,112,555	23.9	35.8	20.3	210,903	37.3
2004	378,498	19.5	7,845,228	20.1	35.6	20.6	387,810	25.3
2003	53,733	38.5	1,004,754	42.6	36.0	19.2	59,799	35.2
2002	60,773	24.9	1,047,529	25.3	33.0	17.7	86,417	24.1
2001	104,177	32.0	1,762,856	36.5	34.0	17.9	77,728	39.5
2000	22,833	32.1	319,604	37.4	32.1	15.3	165,167	22.2

¹⁰ Includes Striped Bass harvested from the Atlantic Ocean during Waves 1 and 6 only.

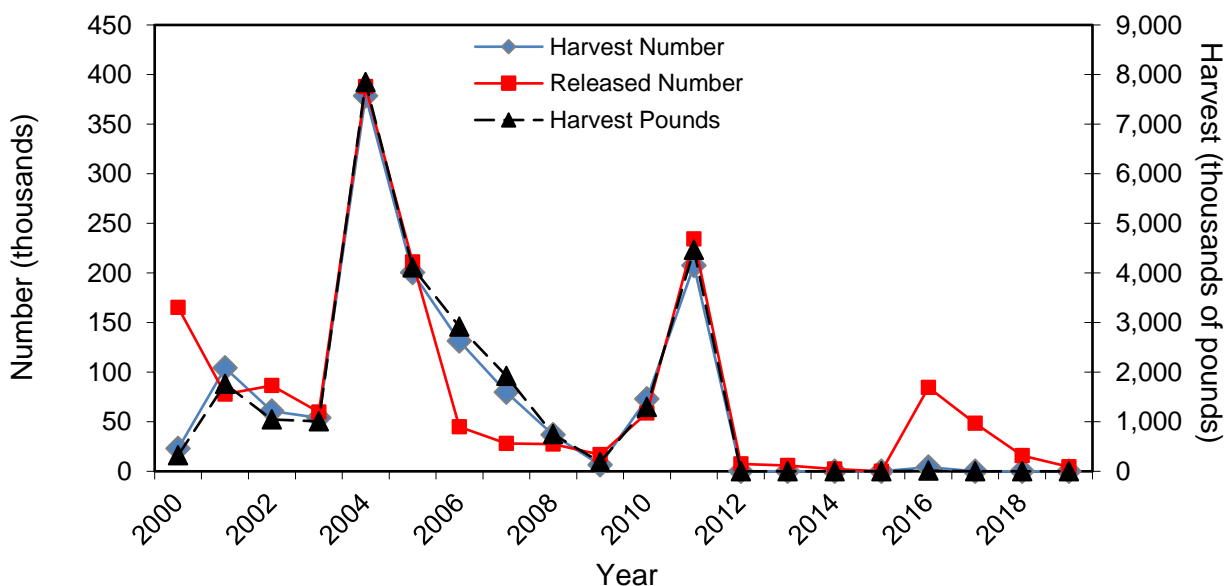


Figure III.51 Striped Bass recreational catch in North Carolina from the Atlantic Ocean by year.

Table III.57 Striped Bass¹⁰ recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	-	-	-	-	-	-	4,521	52.6
Connecticut	3,431	48.9	48,724	51.2	-	-	205,474	42.2
Delaware	5,185	96.0	20,450	96.0	21.3	3.9	37,454	38.8
Maine	21,370	63.4	258,996	55.9	-	-	360,694	27.5
Maryland	1,033	74.6	7,322	62.6	24.5	7.1	3,286	84.1
Massachusetts	35,140	26.9	527,138	26.8	-	-	1,072,386	16.6
New Hampshire	13,798	33.4	282,184	35.8	-	-	142,165	31.7
New Jersey	121,398	25.9	2,316,316	27.1	33.3	17.2	926,178	28.4
New York	183,675	42.5	3,457,256	44.4	34.1	17.6	3,503,435	25.2
Rhode Island	25,530	37.0	370,237	29.4	-	-	1,537,781	22.2

¹⁰ Includes Striped Bass harvested from the Atlantic Ocean during Waves 1 and 6 only.

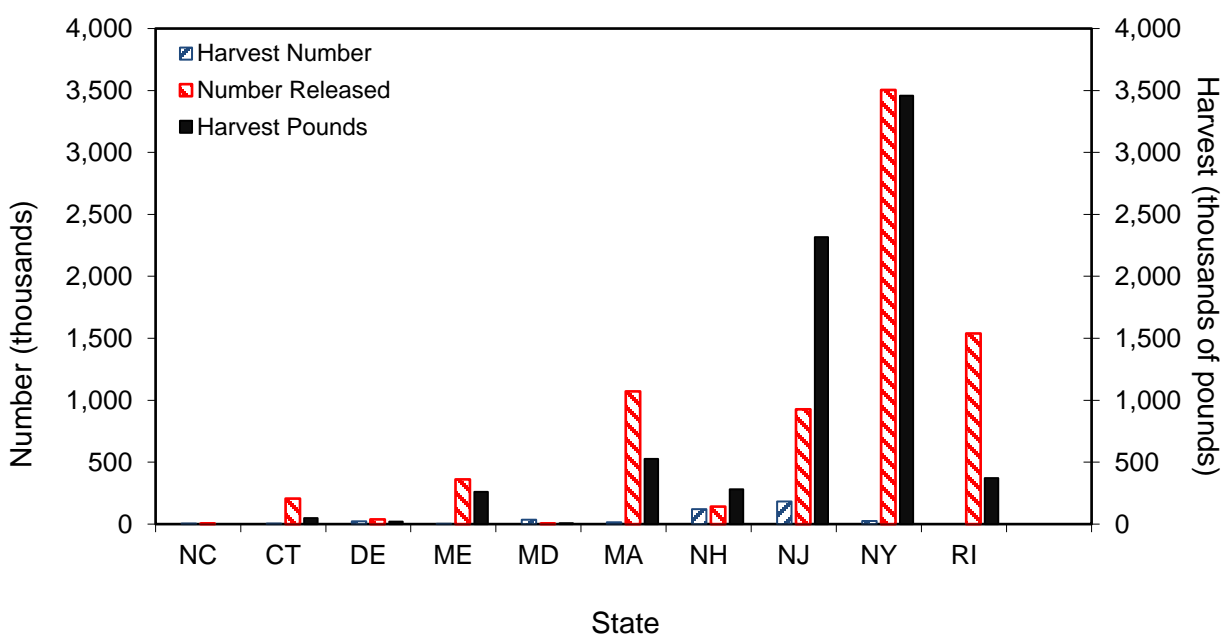


Figure III.52 Striped Bass recreational catch from the Atlantic Ocean by state, 2019.

Table III.58 Summer Flounder recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ¹¹	PSE (release) ¹¹
2019	34,895	31.7	52,872	31.2	15.9	1.5	467,942	-
2018	57,913	25.6	92,032	25.4	15.9	1.6	300,195	-
2017	91,193	28.2	147,426	28.7	16.2	1.6	977,285	-
2016	65,494	27.2	110,392	27.1	16.2	1.7	664,388	-
2015	99,263	23.3	157,437	23.6	16.0	1.6	856,849	-
2014	150,201	21.3	215,294	21.6	15.7	1.4	1,478,527	-
2013	123,742	18.9	196,002	19.1	16.0	1.6	1,359,319	-
2012	176,553	16.5	287,522	16.4	16.3	1.6	1,452,828	-
2011	186,877	15.9	311,573	15.9	16.2	1.7	1,009,389	-
2010	245,839	14.8	341,310	14.2	15.5	1.4	1,486,980	-
2009	219,321	23.7	307,692	23.2	15.7	1.4	1,894,409	-
2008	88,501	17.5	132,743	18.0	15.7	1.5	939,708	-
2007	251,068	18.5	379,387	19.9	15.6	1.5	1,299,735	-
2006	254,653	18.3	326,684	17.5	15.3	1.3	977,039	-
2005	202,797	22.6	289,495	23.2	15.5	1.4	734,860	-
2004	318,632	22.2	467,869	26.0	15.7	1.5	1,283,788	-
2003	177,360	19.2	273,895	19.3	15.3	1.5	763,794	-
2002	366,467	14.4	435,113	14.1	14.7	1.2	1,376,069	-
2001	424,615	11.2	577,139	11.5	15.1	1.4	1,836,338	-
2000	611,081	13.2	780,211	13.0	15.2	1.3	2,007,411	-

¹¹ Flounder releases are not recorded to species; released number was calculated by assigning a ratio of observed flounder by species to reported flounder genus release estimates. PSEs are not available for this analysis.

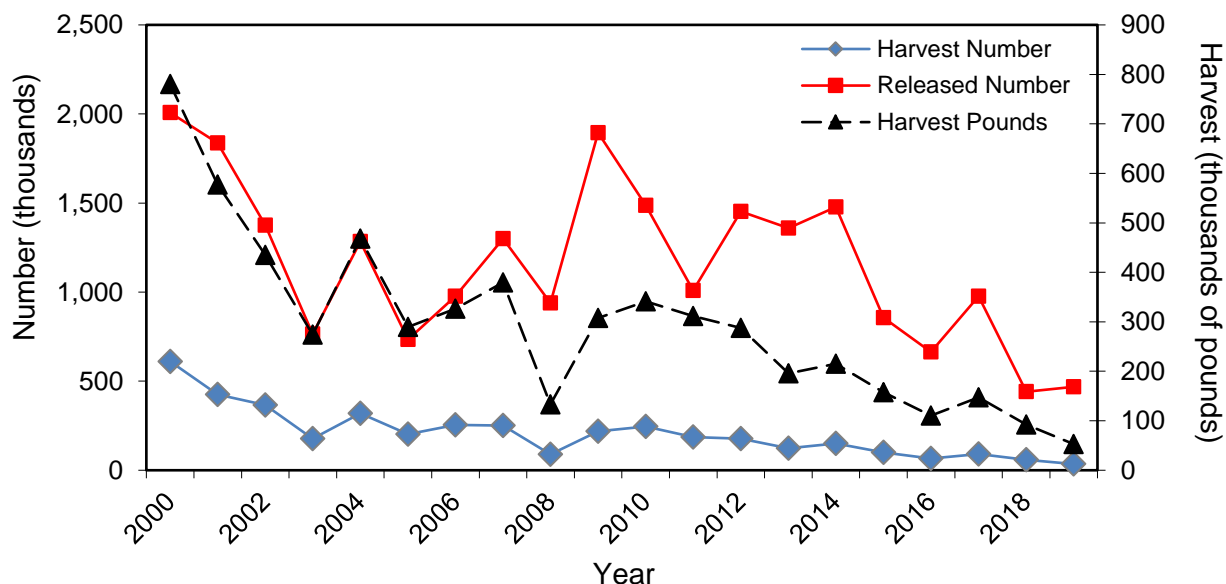


Figure III.53 Summer Flounder recreational catch in North Carolina by year.

Table III.59 Summer Flounder recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ¹²	PSE (release) ¹²
North Carolina	57,913	25.6	92,032	25.4	15.9	1.6	-	-
Connecticut	153,091	24.3	549,268	23.0	20.8	3.6	-	-
Delaware	85,239	17.2	205,380	16.8	18.3	2.4	-	-
Florida	530	100.1	2,096	100.1	16.5	1.7	-	-
Georgia	9,943	80.7	19,637	73.2	16.1	2.0	-	-
Maryland	48,279	31.3	121,760	35.7	17.5	2.5	-	-
Massachusetts	67,302	31.0	142,540	26.3	17.1	2.1	-	-
New Jersey	1,045,198	13.4	3,154,540	15.7	19.7	3.0	-	-
New York	641,186	13.8	2,385,310	14.2	21.2	3.7	-	-
Rhode Island	168,580	25.1	603,752	23.3	20.9	3.6	-	-
South Carolina	4,197	48.9	6,149	47.9	14.8	1.5	-	-
Virginia	145,726	23.1	345,064	26.0	18.6	2.4	-	-

¹² Released flounder are not always recorded to species level. Numbers released are not shown by state.

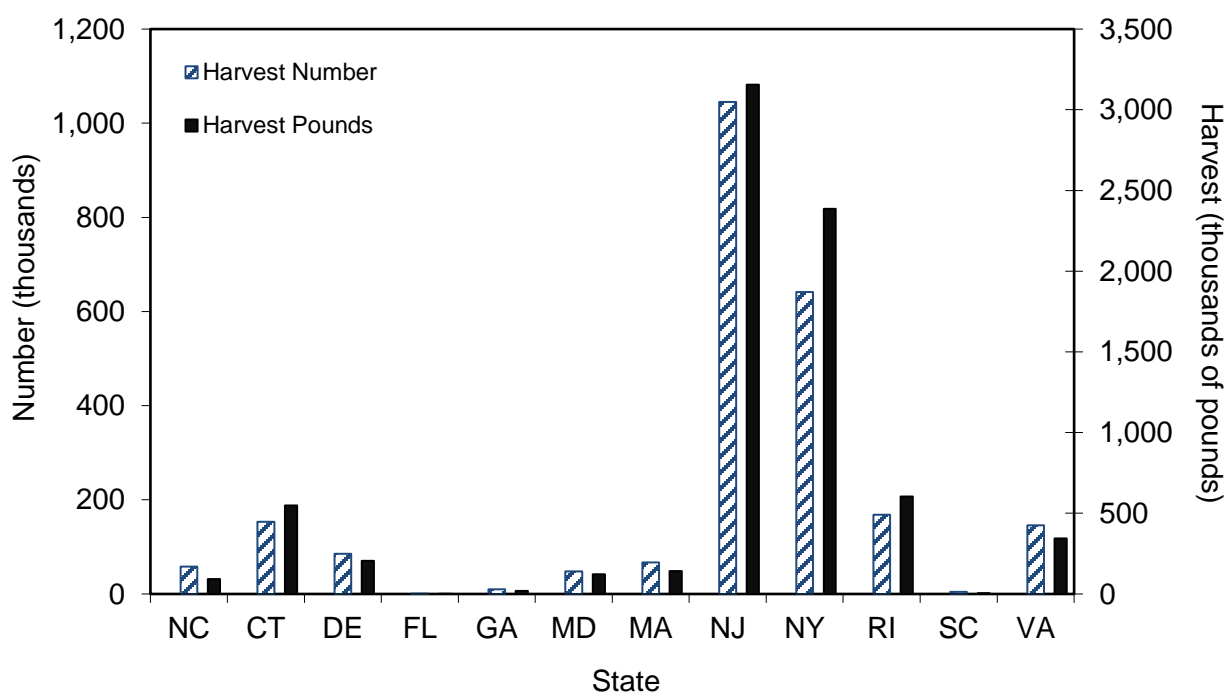


Figure III.54 Summer Flounder recreational catch by state, 2019.

Table III.60 Wahoo recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	17,098	17.6	454,391	17.2	47.1	26.6	23	100.3
2018	10,690	26.3	280,644	25.3	47.7	26.3	182	94.2
2017	30,305	29.1	842,604	31.0	48.8	27.8	-	-
2016	39,565	21.9	1,056,969	22.8	48.1	26.7	5	110.2
2015	36,920	25.2	983,232	23.2	47.9	26.6	608	101.3
2014	29,362	26.9	804,473	27.5	48.2	27.4	22	103.4
2013	11,951	26.7	319,866	25.9	48.4	26.8	337	97.9
2012	37,423	14.9	994,195	15.0	48.2	26.6	12	99.7
2011	21,501	27.9	611,319	32.0	49.0	28.4	40	99.7
2010	19,703	23.1	571,575	26.4	49.0	29.0	2,532	69.6
2009	42,129	57.9	1,696,717	67.5	53.6	40.3	48	97.9
2008	21,777	26.4	527,736	25.5	46.1	24.2	-	-
2007	47,890	43.2	1,495,127	56.1	50.4	31.2	-	-
2006	21,834	21.8	490,904	23.1	45.0	22.5	594	63.8
2005	41,364	45.8	1,249,160	47.6	48.1	30.2	-	-
2004	61,153	51.0	2,220,765	55.8	52.3	36.3	-	-
2003	21,274	37.6	662,567	34.6	48.2	31.1	-	-
2002	32,783	20.6	1,056,010	25.0	48.0	32.2	398	99.9
2001	17,889	28.9	473,926	30.6	46.1	26.5	-	-
2000	18,183	24.7	412,824	25.6	44.9	22.7	1,126	97.4

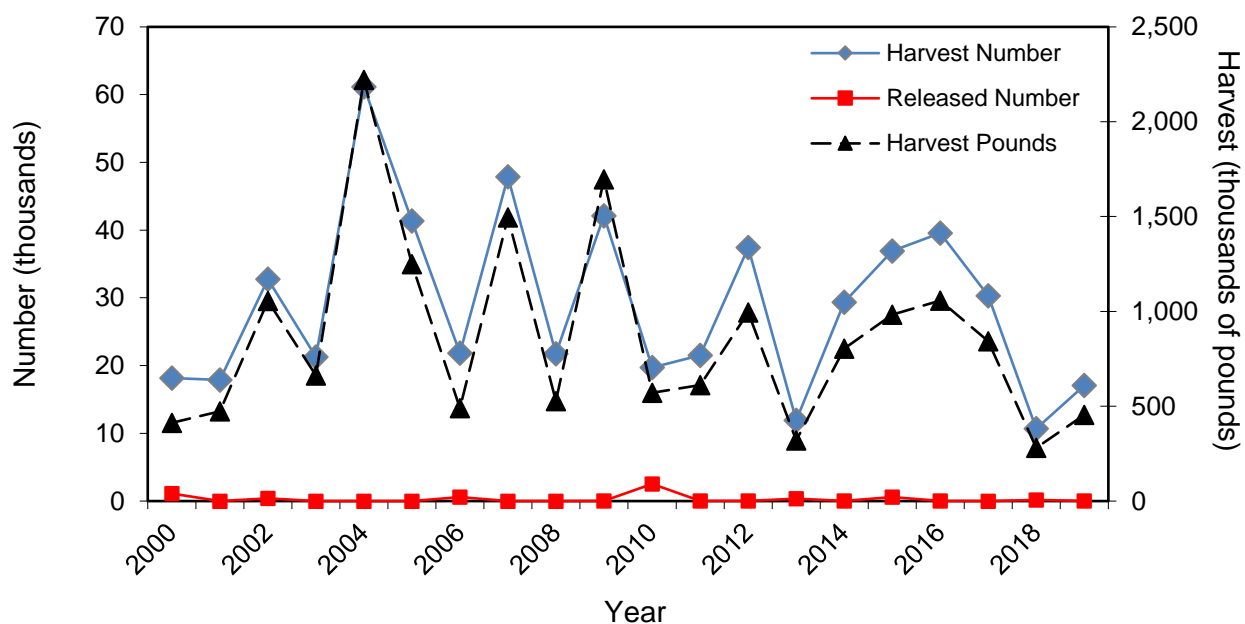


Figure III.55 Wahoo recreational catch in North Carolina by year.

Table III.61 Wahoo recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	17,098	17.6	454,391	17.2	47.1	26.6	23	100.3
Florida	31,379	42.0	1,154,555	43.7	52.9	34.8	-	-
New Jersey	633	102.8	32,944	102.8	58.5	52.0	-	-
South Carolina	8,206	91.7	331,040	91.7	56.0	40.3	-	-
Virginia	3,359	74.5	110,770	75.6	51.5	33.0	-	-

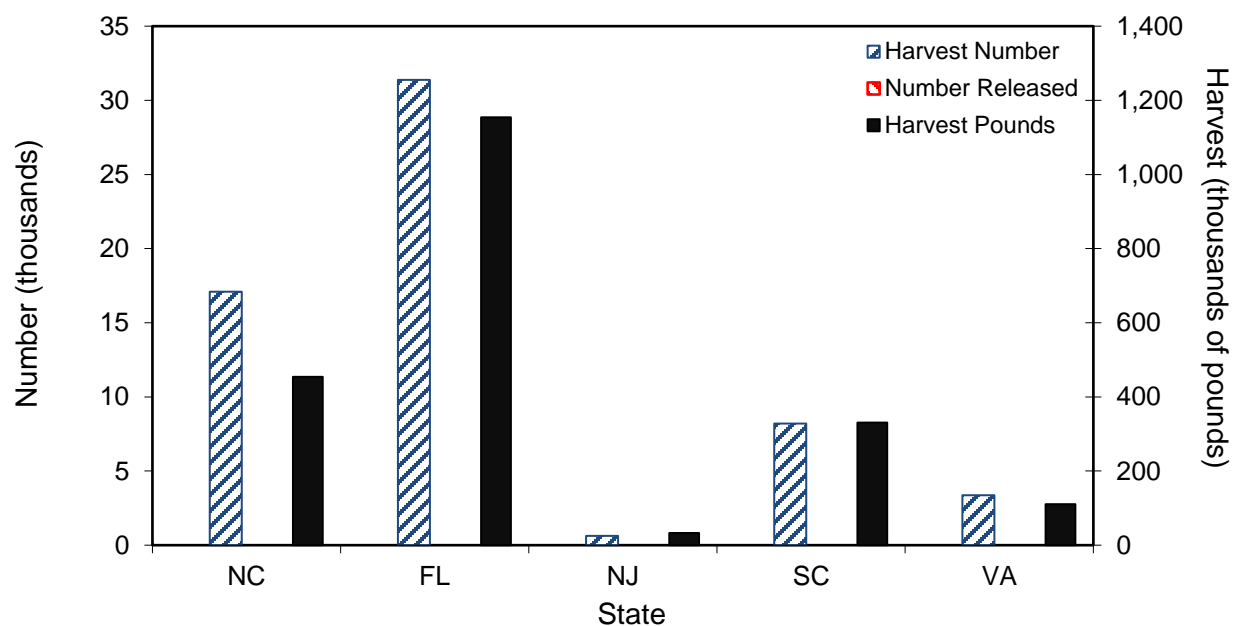


Figure III.56 Wahoo recreational catch by state, 2019.

Table III.62 Weakfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ⁸	PSE (release) ⁸
2019	39,061	21.4	43,252	22.0	14.5	1.1	269,146	-
2018	30,935	39.5	29,924	40.5	13.4	1.0	299,496	-
2017	51,795	23.6	55,944	26.5	14.2	1.1	351,613	-
2016	77,341	25.8	83,702	26.3	14.0	1.1	1,097,615	-
2015	143,543	26.6	157,269	26.5	14.0	1.1	1,652,582	-
2014	71,912	24.8	70,988	24.5	13.8	1.0	1,067,344	-
2013	63,090	24.2	66,720	23.2	14.2	1.1	257,367	-
2012	96,947	26.4	95,952	22.0	13.8	1.0	396,620	-
2011	48,727	24.9	62,543	26.6	14.7	1.3	380,366	-
2010	110,770	16.9	103,903	17.4	13.6	0.9	914,004	-
2009	204,814	23.5	245,358	28.8	14.8	1.2	626,742	-
2008	203,779	22.0	209,470	22.8	13.8	1.0	470,805	-
2007	191,192	19.7	202,583	19.8	14.2	1.1	600,987	-
2006	343,092	18.1	302,775	19.6	13.6	0.9	1,047,135	-
2005	297,605	19.5	281,710	20.0	14.0	0.9	702,685	-
2004	395,268	18.5	428,627	18.4	14.5	1.1	614,762	-
2003	291,168	18.4	309,412	17.6	14.1	1.1	422,294	-
2002	214,040	21.8	215,402	23.8	13.9	1.0	917,803	-
2001	317,974	19.0	325,447	20.1	14.1	1.0	2,831,044	-
2000	147,397	19.2	179,599	20.1	14.8	1.2	852,262	-

⁸ Seatrout releases are not recorded to species; released number was calculated by assigning a ratio of observed seatrout by species to reported seatrout genus release estimates. PSEs are not available for this analysis.

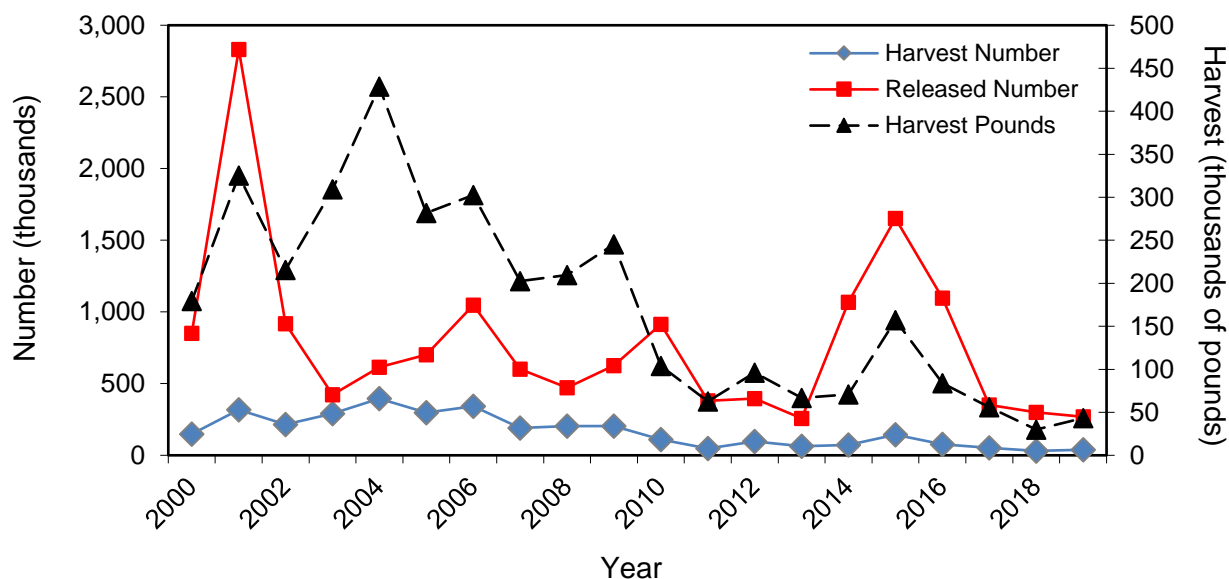


Figure III.57 Weakfish recreational catch in North Carolina by year.

Table III.63 Weakfish recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number ⁹	PSE (release) ⁹
North Carolina	39,061	21.4	43,252	22.0	14.5	1.1	-	-
Connecticut	2,535	94.5	8,238	96.1	21.9	3.2	-	-
Delaware	9,565	53.2	13,941	58.3	16.3	1.5	-	-
Florida	53,494	97.0	47,249	96.8	13.1	0.9	-	-
Georgia	3,961	57.4	4,538	61.0	13.8	1.1	-	-
Maryland	7,191	57.1	9,602	59.2	14.5	1.3	-	-
New Jersey	35,089	64.1	38,886	63.6	14.3	1.1	-	-
New York	36,672	37.9	75,405	36.4	18.0	2.1	-	-
South Carolina	57,772	30.0	72,949	34.2	14.8	1.3	-	-
Virginia	38,292	32.3	30,573	30.0	13.1	0.8	-	-

⁹ Released seatrout are not always recorded to species level. Numbers released are not shown by state.

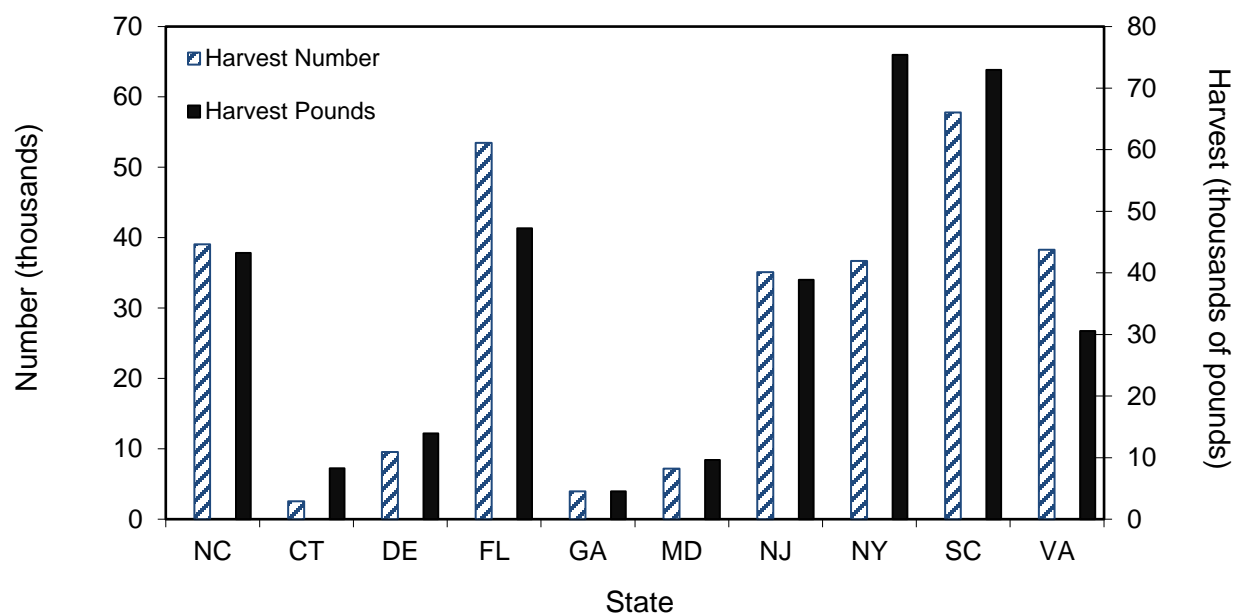


Figure III.58 Weakfish recreational catch by state, 2019.

Table III.64 White Grunt recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	78,808	53.9	88,164	53.6	11.0	1.1	51,294	58.4
2018	11,486	33.2	16,551	34.0	12.0	1.4	6,551	38.9
2017	36,459	42.5	58,656	42.8	12.5	1.6	49,159	61.1
2016	49,190	38.9	85,197	40.8	12.7	1.7	72,791	66.6
2015	42,614	34.4	75,878	35.5	12.7	1.8	30,399	49.1
2014	48,030	58.9	85,941	59.8	13.4	1.8	4,406	51.6
2013	25,864	40.0	44,343	42.3	13.5	1.7	11,631	46.6
2012	102,155	30.9	169,755	30.3	12.9	1.7	19,332	65.0
2011	36,911	34.6	66,981	34.3	13.0	1.8	25,807	43.5
2010	52,062	47.6	81,365	46.7	12.4	1.6	14,384	44.2
2009	109,271	30.8	182,294	30.5	12.6	1.7	5,058	59.0
2008	204,033	32.3	302,233	32.9	12.4	1.5	17,906	82.9
2007	175,591	28.7	275,721	28.9	12.6	1.6	14,319	52.2
2006	151,440	39.2	235,456	40.6	12.6	1.6	31,998	71.0
2005	207,542	35.3	345,702	37.7	12.7	1.7	54,688	73.6
2004	184,996	29.3	264,518	30.6	11.9	1.4	45,327	70.6
2003	146,426	34.6	236,464	33.7	11.6	1.6	17,556	94.3
2002	167,107	29.8	337,495	31.5	13.4	2.0	-	-
2001	96,771	30.5	161,692	30.5	12.6	1.7	6,527	100.8
2000	10,024	84.3	9,287	85.2	10.2	0.9	525	99.4

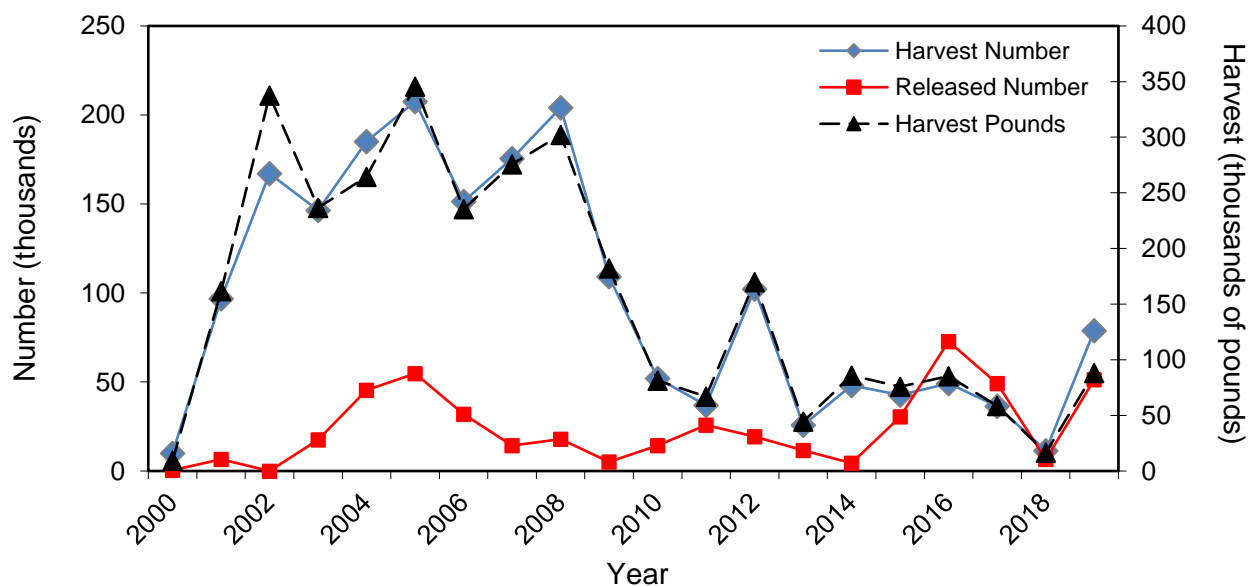


Figure III.59 White Grunt recreational catch in North Carolina by year.

Table III.65 White Grunt recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	78,808	53.9	88,164	53.6	11.0	1.1	51,294	58.4
Florida	337,076	32.6	194,853	30.9	10.3	0.8	298,981	26.2
Georgia	649	69.7	1,907	84.2	13.7	2.9	-	-
South Carolina	55,322	51.0	51,819	37.2	10.1	0.9	55,896	44.3

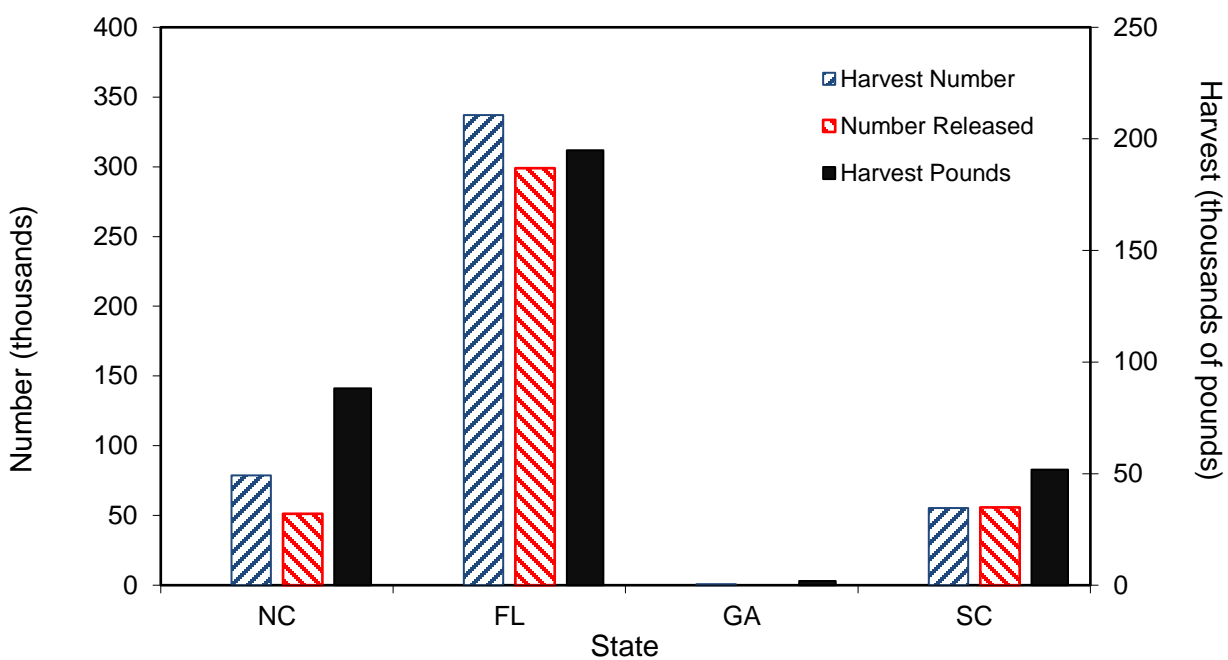


Figure III.60 White Grunt recreational catch by state, 2019.

Table III.66 Yellowfin Tuna recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	44,864	20.4	1,190,484	20.0	33.9	26.5	2,333	53.2
2018	61,171	31.3	1,977,741	27.1	36.2	32.3	3,739	46.0
2017	118,659	22.2	4,040,504	20.2	37.7	34.1	17,812	29.2
2016	80,458	23.2	3,164,911	24.1	39.3	39.3	28,643	63.7
2015	38,199	25.2	1,079,798	24.5	35.0	28.3	2,196	44.0
2014	44,151	24.8	1,392,966	24.8	36.5	31.6	7,460	36.7
2013	52,907	18.1	1,705,605	19.5	37.0	32.2	1,229	51.4
2012	70,288	24.2	1,929,343	23.8	34.8	27.4	8,975	49.5
2011	33,360	26.2	1,066,616	25.0	37.0	32.0	663	63.3
2010	41,652	28.4	1,521,261	29.5	39.6	36.5	767	56.8
2009	36,066	26.0	959,832	23.1	34.4	26.6	1,472	82.8
2008	21,824	31.9	610,660	31.1	34.5	28.0	65	74.1
2007	144,826	24.3	3,886,004	22.3	35.1	26.8	499	86.1
2006	244,825	18.2	7,182,919	18.3	35.6	29.3	16,727	33.8
2005	243,895	21.5	7,080,724	23.9	35.5	29.0	11,865	31.6
2004	209,747	22.0	5,379,213	19.5	33.8	25.6	10,183	29.0
2003	185,148	19.5	4,997,756	20.5	33.3	27.0	27,510	36.1
2002	149,407	27.0	3,396,466	25.5	32.2	22.7	8,926	67.8
2001	170,808	17.2	5,028,308	16.8	34.5	29.4	238	54.6
2000	175,812	17.5	5,110,592	17.7	35.2	29.1	4,245	40.8

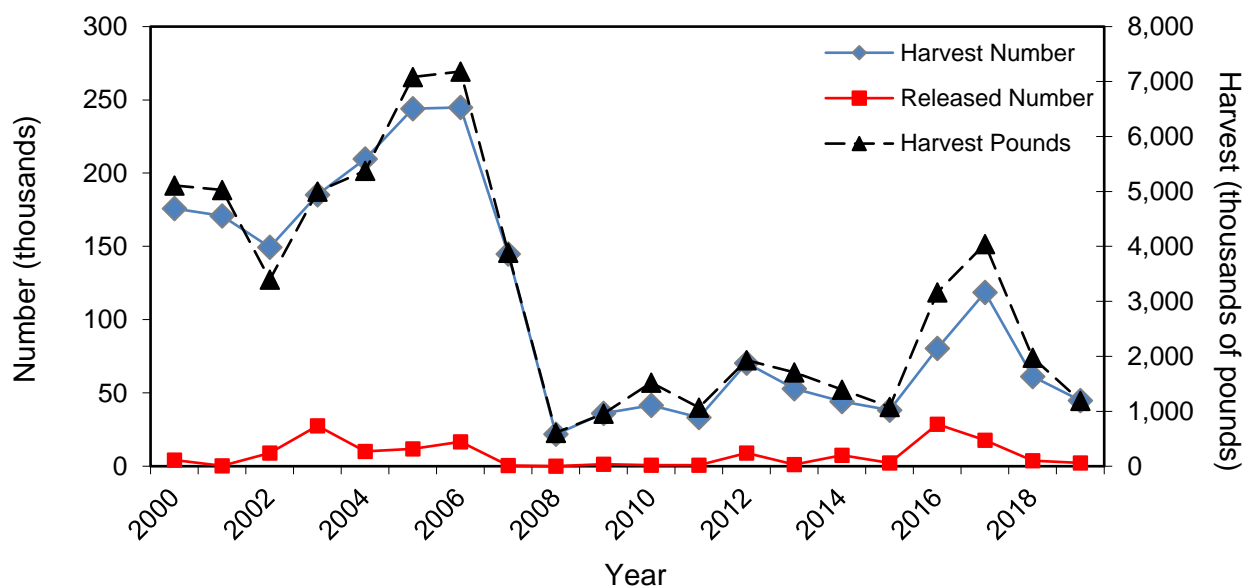


Figure III.61 Yellowfin Tuna recreational catch in North Carolina by year.

Table III.67 Yellowfin Tuna recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	44,864	20.4	1,190,484	20.0	33.9	26.5	2,333	53.2
Connecticut	-	-	-	-	-	-	8,768	84.4
Delaware	344	97.1	9,825	97.1	34.6	28.5	-	-
Maryland	34,064	45.1	879,311	45.9	33.4	25.8	19,885	62.4
Massachusetts	93	49.7	2,880	49.7	32.3	30.9	275	57.1
New Jersey	19,275	49.7	633,782	46.0	36.4	32.9	6,466	62.4
New York	3,333	89.0	115,059	89.4	37.1	34.5	7,706	67.7
Rhode Island	16	91.1	493	91.1	32.3	30.9	8	91.1
Virginia	8,561	48.9	251,379	48.5	34.8	29.4	790	100.9

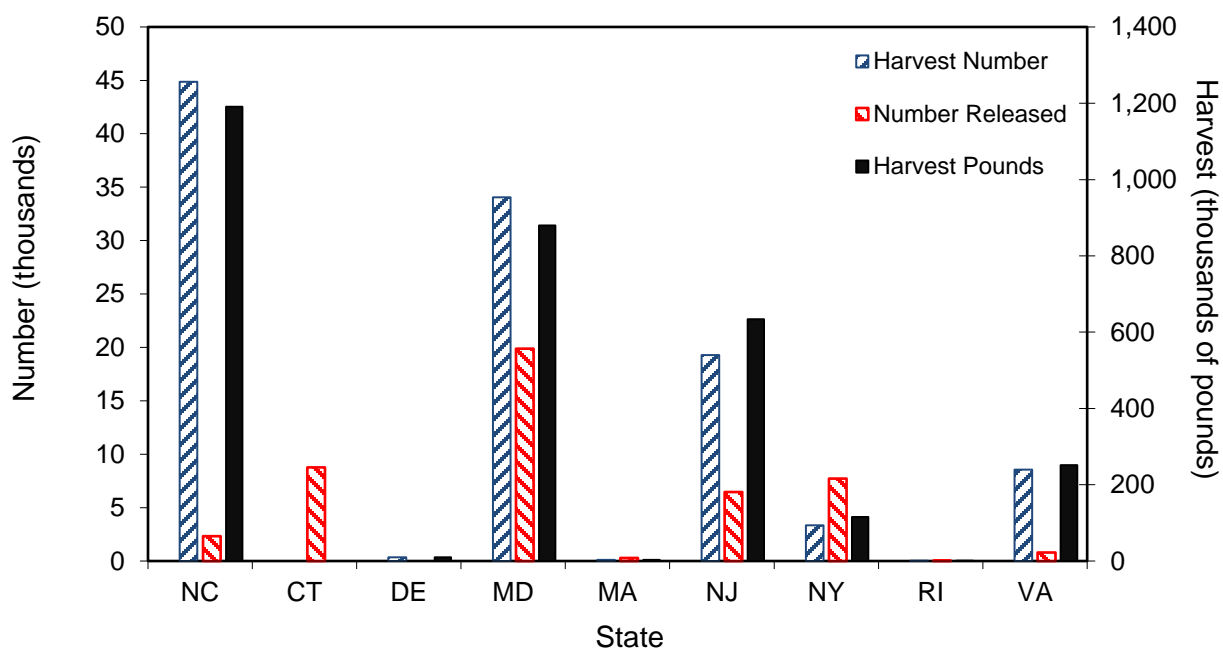


Figure III.62 Yellowfin Tuna recreational catch by state, 2019.

Table III.68 Large coastal shark recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches) ¹³	Mean Weight (lb) ¹³	Released Number	PSE (release)
2019	60	72.1	3,745	72.1	-	-	26,010	44.0
2018	7	95.8	235	95.8	-	-	3,845	70.4
2017	910	79.6	27,367	83.4	-	-	43,041	43.7
2016	12	101.0	1,100	101.0	-	-	27,885	54.3
2015	25	72.8	2,667	101.3	-	-	139,486	66.1
2014	556	89.4	10,194	91.4	-	-	16,306	42.2
2013	59	113.4	11,128	113.4	-	-	7,976	39.7
2012	1,283	99.7	1,997	70.7	-	-	18,205	77.8
2011	474	100.0	732	100.0	-	-	14,797	88.8
2010	120	102.8	211	102.8	-	-	24,902	56.9
2009	-	-	-	-	-	-	5,837	96.3
2008	51	103.6	794	103.6	-	-	-	-
2007	2,543	68.0	30,985	69.7	-	-	32,680	45.0
2006	187	101.3	10,744	101.3	-	-	13,825	66.2
2005	859	95.6	50,494	95.6	-	-	10,540	50.2
2004	-	-	-	-	-	-	411	99.9
2003	863	67.0	8,931	65.3	-	-	1,177	70.2
2002	442	98.7	1,837	98.7	-	-	1,134	69.3
2001	2,166	87.6	28,312	56.8	-	-	163	87.2
2000	1,764	50.1	46,249	63.2	-	-	-	-

¹³ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

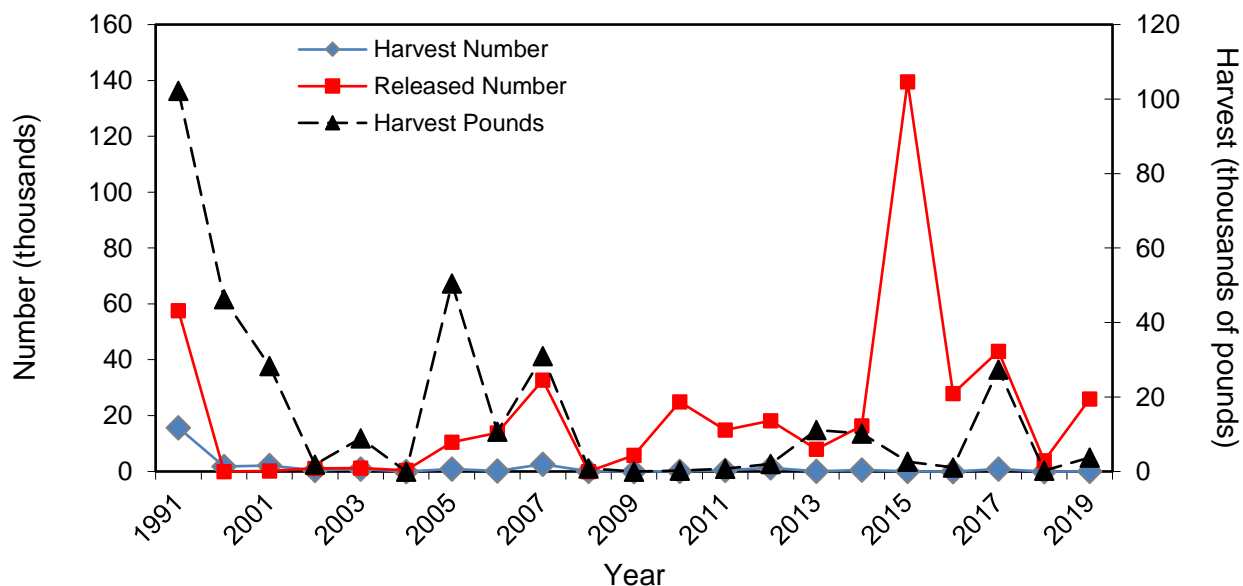


Figure III.63 Large coastal shark recreational catch in North Carolina by year.

Table III.69 Large coastal shark recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches) ¹³	Mean Weight (lb) ¹³	Released Number	PSE (release)
North Carolina	60	72.1	3,745	72.1	-	-	26,010	44.0
Connecticut	-	-	-	-	-	-	300	105.2
Delaware	-	-	-	-	-	-	7,464	36.2
Florida	-	-	-	-	-	-	115,387	27.2
Georgia	-	-	-	-	-	-	206,370	35.3
Maryland	-	-	-	-	-	-	8,393	60.8
Massachusetts	-	-	-	-	-	-	1,074	90.9
New Jersey	-	-	-	-	-	-	60,689	45.4
New York	-	-	-	-	-	-	4,788	66.7
Rhode Island	-	-	-	-	-	-	28	107.2
South Carolina	157	95.5	1,730	95.5	-	-	121,404	30.2
Virginia	792	73.9	-	-	-	-	65,187	53.4

¹³ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

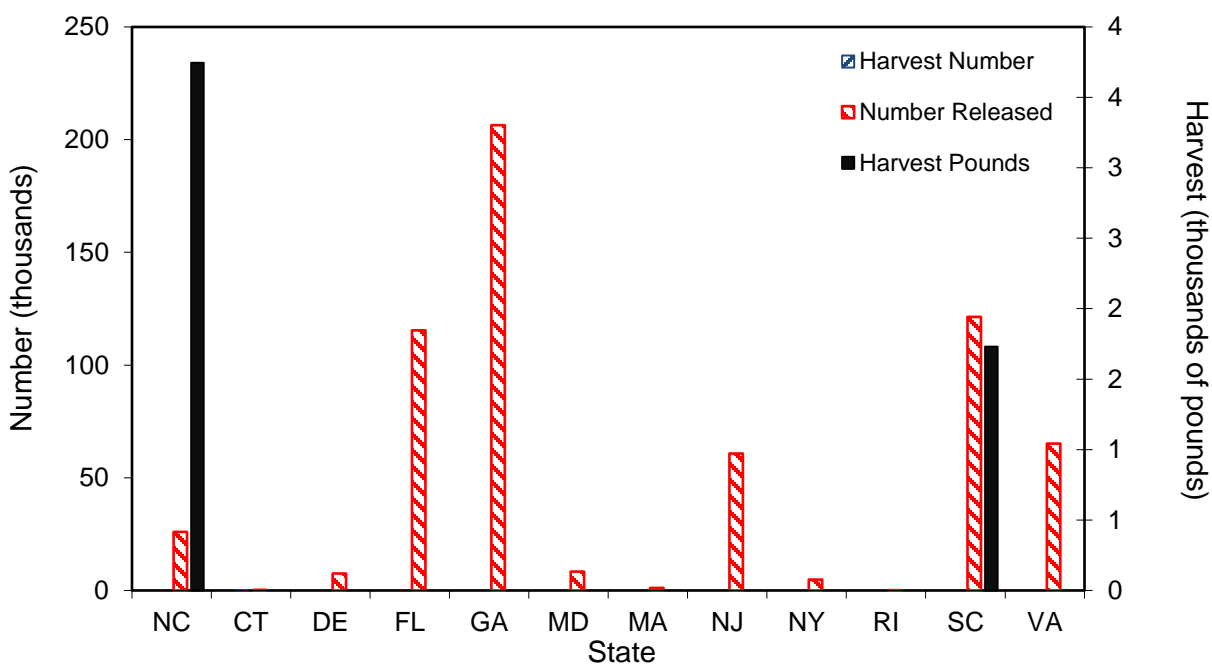


Figure III.64 Large coastal shark recreational catch by state, 2019.

Table III.70 Small coastal shark recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches) ¹³	Mean Weight (lb) ¹³	Released Number	PSE (release)
2019	13,736	70.8	106,765	75.8	-	-	34,952	36.1
2018	1,678	38.9	9,097	40.9	-	-	4,496	39.5
2017	5,768	56.5	19,256	42.3	-	-	58,440	60.5
2016	514	66.6	2,545	63.4	-	-	133,214	57.0
2015	6,656	41.3	38,499	44.3	-	-	15,866	70.4
2014	7,420	56.7	24,060	43.9	-	-	2,043	57.5
2013	2,171	45.9	13,474	48.0	-	-	16,772	42.1
2012	2,082	47.5	11,804	48.4	-	-	7,733	43.5
2011	1,209	42.5	7,659	44.0	-	-	37,276	33.1
2010	4,654	46.5	21,878	37.1	-	-	107,135	66.6
2009	5,532	41.1	51,183	48.7	-	-	5,334	62.7
2008	5,421	62.9	30,675	60.8	-	-	-	-
2007	6,784	50.9	47,902	48.9	-	-	5,631	72.2
2006	7,640	69.9	51,377	68.8	-	-	58,571	38.8
2005	1,682	90.4	15,014	92.5	-	-	3,519	81.2
2004	3,291	58.0	24,421	59.8	-	-	-	-
2003	12,658	72.7	85,339	67.2	-	-	-	-
2002	2,184	46.7	16,620	48.9	-	-	-	-
2001	4,285	43.8	30,301	44.8	-	-	-	-
2000	2,428	73.8	9,193	65.6	-	-	-	-

¹³ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

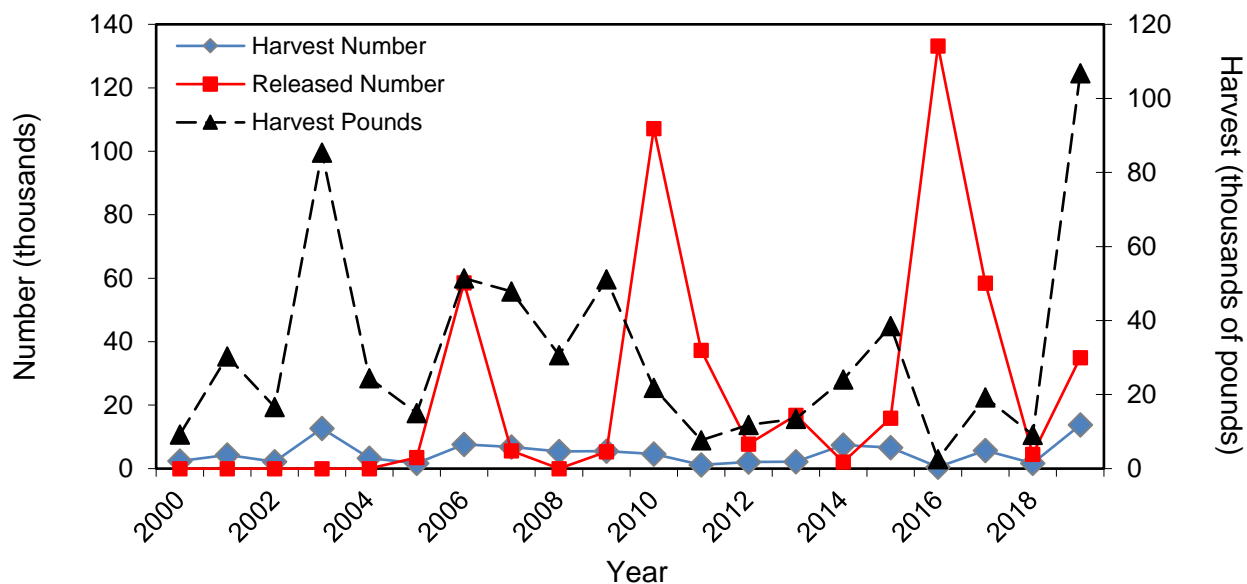


Figure III.65 Small coastal shark recreational catch in North Carolina by year.

Table III.71 Small coastal shark recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches) ¹³	Mean Weight (lb) ¹³	Released Number	PSE (release)
North Carolina	13,736	70.8	106,765	75.8	-	-	34,952	36.1
Florida	15,359	58.6	168,987	73.2	-	-	672,569	40.8
Georgia	13,753	43.2	73,923	50.7	-	-	347,683	17.0
Maryland	686	79.9	5,546	79.7	-	-	2,380	98.8
Massachusetts	-	-	-	-	-	-	6,290	95.9
South Carolina	22,315	29.1	95,826	31.6	-	-	198,312	15.5
Virginia	559	99.3	4,311	99.3	-	-	226	73.7

¹³ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

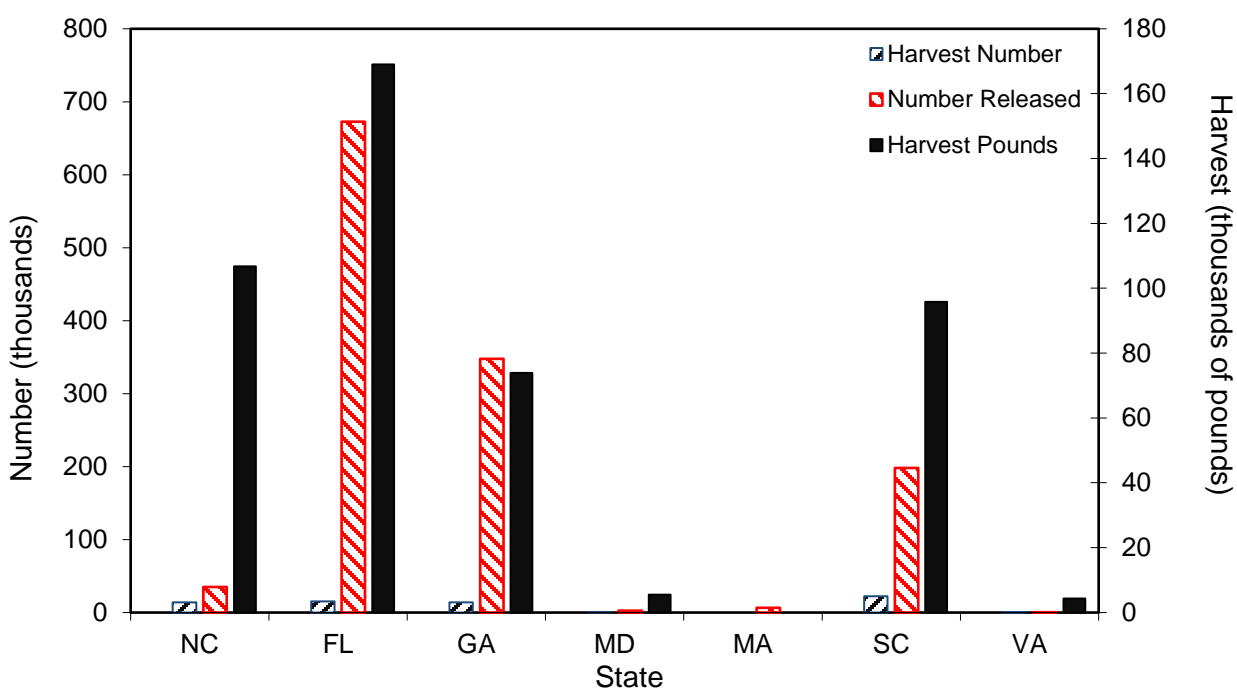


Figure III.66 Small coastal shark recreational catch by state, 2019.

Table III.72 Pelagic shark recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches) ¹³	Mean Weight (lb) ¹³	Released Number	PSE (release)
2019	-	-	-	-	-	-	888	65.7
2018	2,043	73.1	160,155	73.1	-	-	38	63.0
2017	66	64.1	4,917	62.2	-	-	33	86.2
2016	-	-	-	-	-	-	3,512	79.0
2015	5,097	76.1	479,443	75.9	-	-	987	91.8
2014	26	54.6	2,082	51.5	-	-	296	110.5
2013	28	100.8	1,219	100.8	-	-	1,865	97.1
2012	291	76.7	17,323	73.6	-	-	13	98.3
2011	78	76.4	4,803	68.0	-	-	-	-
2010	77	83.2	12,324	88.1	-	-	96	99.2
2009	91	58.8	8,123	57.5	-	-	-	-
2008	28	81.4	2,536	81.4	-	-	-	-
2007	78	74.3	7,223	74.9	-	-	151	109.9
2006	93	55.2	9,605	64.6	-	-	1,103	94.7
2005	3,052	97.6	231,185	96.9	-	-	1,049	89.1
2004	452	88.8	66,257	91.5	-	-	-	-
2003	31	101.3	2,418	101.3	-	-	-	-
2002	40	76.6	12,764	90.9	-	-	-	-
2001	182	44.0	27,610	43.0	-	-	107	100.4
2000	173	47.9	22,234	61.0	-	-	-	-

¹³ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

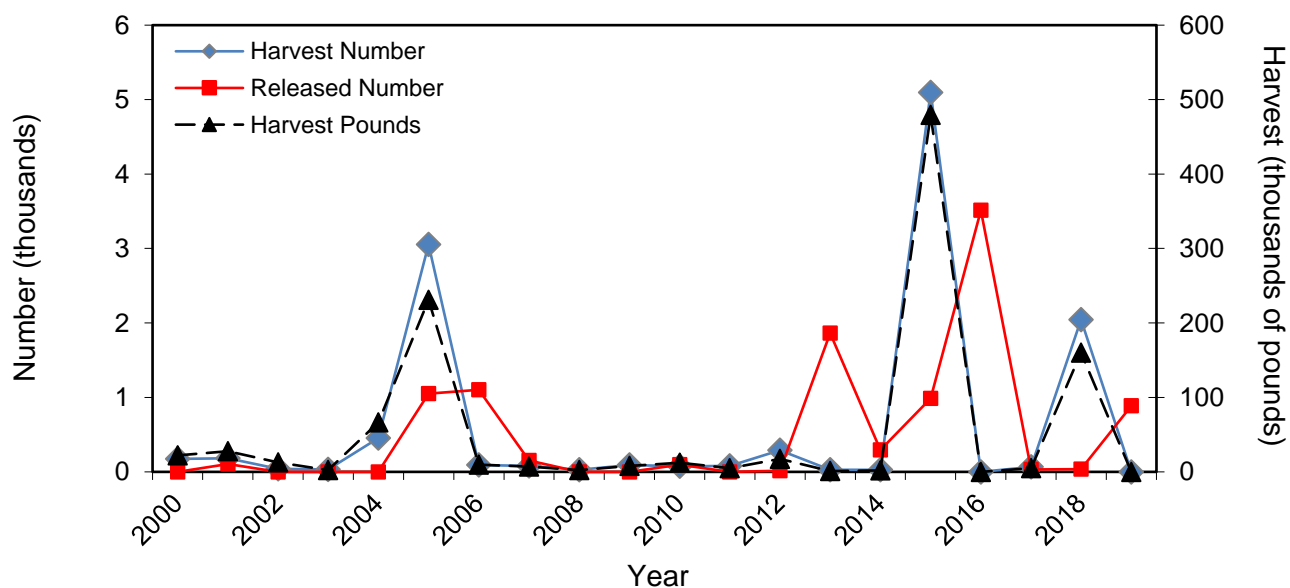


Figure III.67 Pelagic shark recreational catch in North Carolina by year.

Table III.73 Pelagic shark recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches) ¹³	Mean Weight (lb) ¹³	Released Number	PSE (release)
North Carolina	-	-	-	-	-	-	888	65.7
Connecticut	-	-	-	-	-	-	1,474	80.5
Delaware	-	-	-	-	-	-	703	73.2
Maine	-	-	-	-	-	-	6,600	63.3
Massachusetts	52	58.7	-	-	-	-	14,772	44.4
New Hampshire	-	-	-	-	-	-	1,121	63.3
New Jersey	5,462	85.9	1,599,761	75.6	-	-	4,845	42.3
New York	6,022	48.6	2,045,883	43.5	-	-	2,833	53.8
Rhode Island	1,006	93.8	-	-	-	-	6,245	70.2

¹³ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

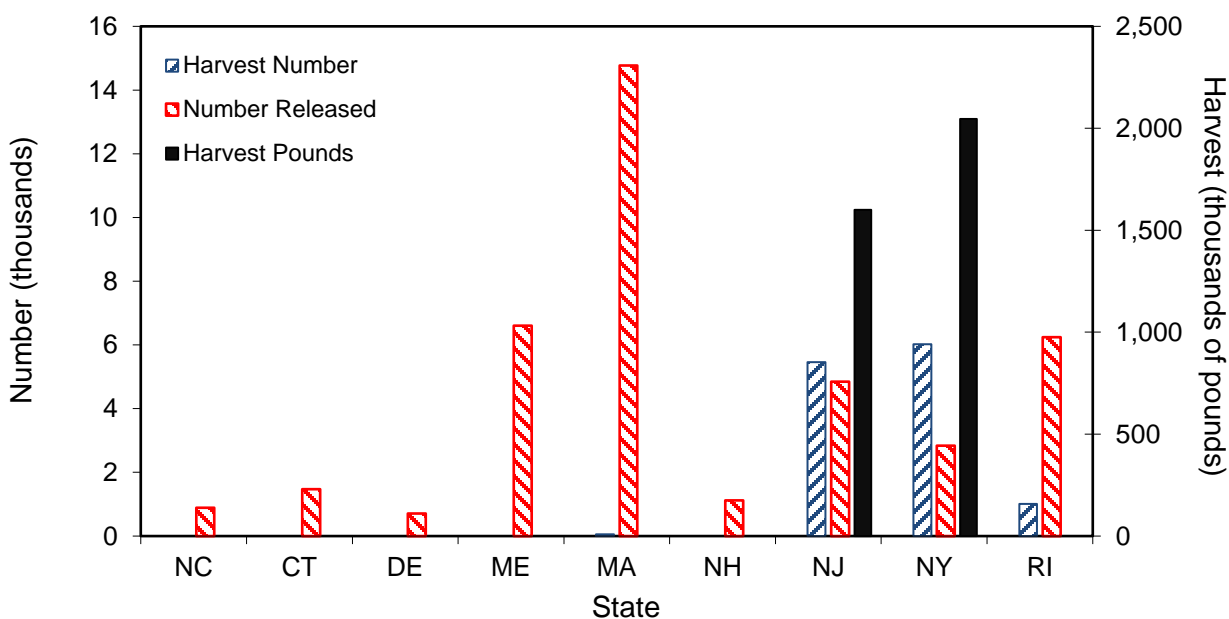


Figure III.68 Pelagic shark recreational catch by state, 2019.

Table III.74 Dogfish shark family recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2019	8,962	56.3	50,477	60.3	-	-	277,815	37.2
2018	7,514	74.1	43,732	80.5	-	-	237,213	62.4
2017	683	84.5	5,616	87.0	-	-	113,453	42.2
2016	33,490	63.0	359,844	64.0	-	-	181,165	30.9
2015	8,314	61.7	38,340	76.7	-	-	777,052	43.9
2014	1,992	88.2	11,978	90.4	-	-	709,206	29.4
2013	52,026	77.6	88,216	71.4	-	-	2,100,519	39.9
2012	1,600	75.7	10,522	82.4	-	-	197,177	33.4
2011	28,719	43.1	108,348	43.5	-	-	607,971	24.8
2010	8,859	46.0	26,626	45.5	-	-	362,012	22.0
2009	2,000	81.1	43,216	81.1	-	-	175,626	45.6
2008	20,340	69.2	17,414	66.5	-	-	405,531	55.6
2007	5,405	100.9	36,342	100.9	-	-	187,272	34.4
2006	5,775	56.6	71,369	65.1	-	-	150,924	27.1
2005	37,180	64.9	275,611	64.5	-	-	792,947	75.0
2004	2,574	78.8	31,524	75.2	-	-	919,204	33.2
2003	3,105	88.8	2,958	98.3	-	-	145,851	59.5
2002	8,675	87.3	22,922	83.4	-	-	115,577	30.5
2001	6,843	99.8	5,374	99.8	-	-	229,402	29.6
2000	1,151	88.2	9,693	87.6	-	-	109,351	33.0

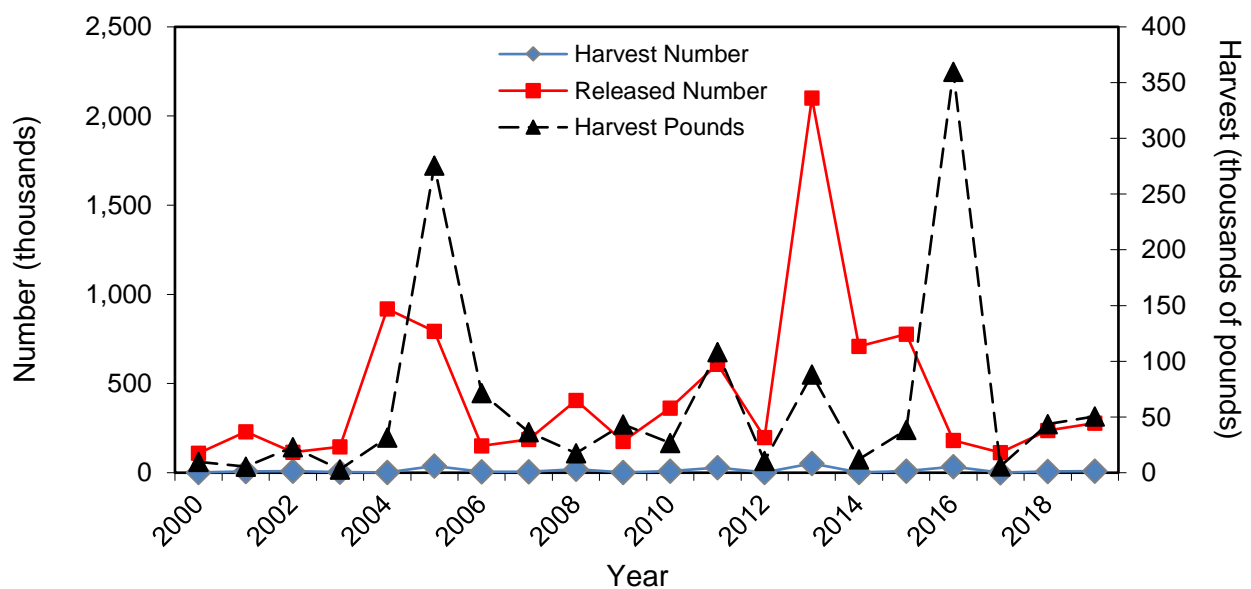


Figure III.69 Dogfish shark family recreational catch in North Carolina by year.

Table III.75 Dogfish shark family recreational catch by state, 2019.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	8,962	56.3	50,477	60.3	-	-	277,815	37.2
Connecticut	2,888	42.5	6,195	60.8	-	-	239,919	21.8
Delaware	695	58.2	2,146	79.5	-	-	111,567	36.8
Florida	-	-	-	-	-	-	23,844	112.5
Georgia	-	-	-	-	-	-	5,272	103.0
Maine	864	114.7	4,073	114.7	-	-	127,160	41.1
Maryland	-	-	-	-	-	-	24,174	81.9
Massachusetts	4,677	41.3	15,352	45.6	-	-	131,110	34.8
New Hampshire	-	-	-	-	-	-	64,885	62.4
New Jersey	7,217	74.8	7,864	48.9	-	-	1,956,304	19.5
New York	57,440	33.6	141,652	40.1	-	-	1,651,428	17.4
Rhode Island	1,007	56.3	1,658	79.8	-	-	98,844	24.1
South Carolina	361	98.9	874	98.9	-	-	4,677	67.7
Virginia	19	59.8	61	51.7	-	-	13,144	50.1

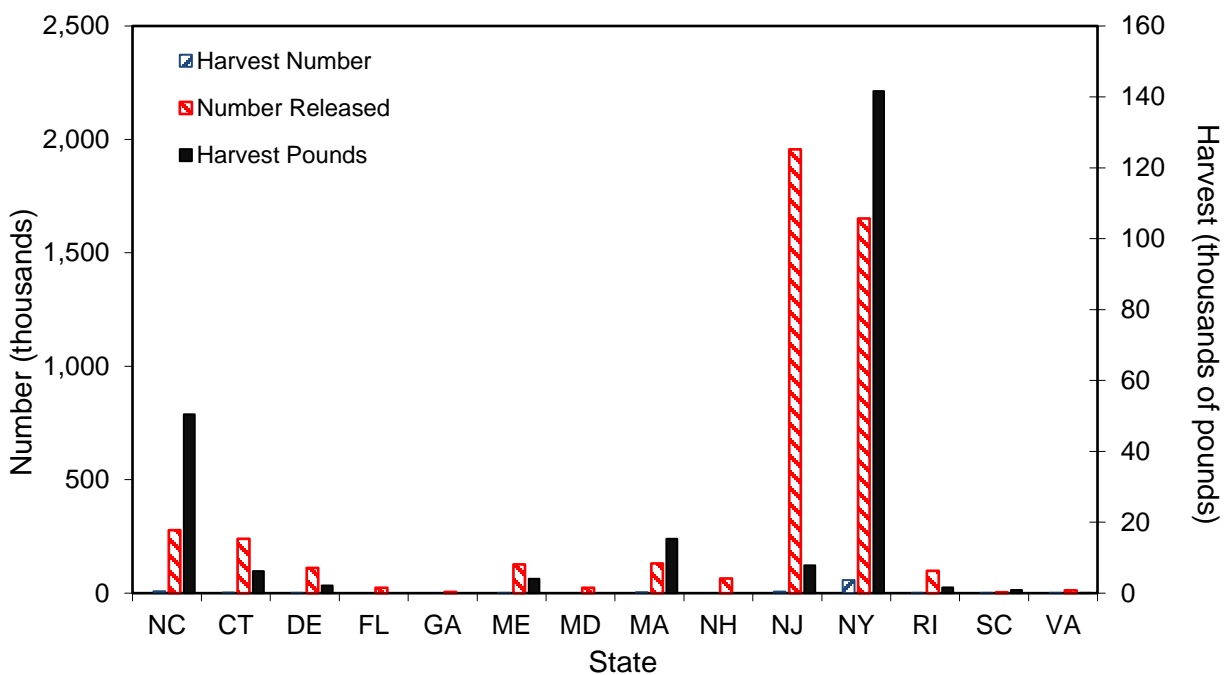


Figure III.70 Dogfish shark family recreational catch by state, 2019.

Table III.76 Reported North Carolina highly migratory species landings (numbers).

Year	Blue Marlin	White Marlin	Sailfish	Swordfish	Total
2019	28	0	8	66	102
2018	28	1	9	10	48
2017	16	3	3	5	27
2016	23	0	4	6	33
2015	23	2	0	0	25
2014	15	0	0	0	15
2013	10	0	3	0	13
2012	20	0	0	1	21
2011	9	3	2	0	14
2010	14	2	1	0	17
2009	11	0	0	2	13
2008	24	1	0	0	25
2007	4	0	0	2	6
2006	12	0	0	0	12
2005	14	0	0	0	14

Table III.77 Reported North Carolina recreational Atlantic Bluefin Tuna landings¹⁴ (numbers).

Year	Manteo/ Oregon Inlet	Hatteras	Ocracoke	Morehead City	Wilmington South	Call-In	Total
2019	50	0	0	0	0	19	61
2018	32	0	0	0	0	1	33
2017	37	2	0	0	0	-	39
2016	62	10	0	0	0	2	74
2015	28	13	0	0	0	3	44
2014	62	3	0	2	0	2	69
2013	150	48	0	0	0	3	201
2012	143	40	1	0	2	3	189
2011	158	164	0	0	0	6	328
2010	378	193	0	0	0	8	579
2009	79	55	0	0	0	1	135
2008	72	51	0	8	0	1	132
2007	122	41	0	9	3	0	175
2006	0	13	0	13	5	0	31
2005	0	1	0	29	0	0	30
2004	0	0	0	19	0	1	20
2003	0	7	0	86	6	0	99
2002	1	10	4	64	3	0	82
2001	1	63	1	205	20	3	293
2000	0	339	8	147	87	9	590

¹⁴ Does not include trophy category.

Table III.78 Atlantic Coast saltwater fishing trips by state and mode, 2019.

State	Number of Trips					Total
	Shore ¹⁵	Private & Rental	Charter	Man Made ¹⁵	Beach/Bank ¹⁵	
Connecticut	2,272,146	1,452,664	13,383	-	-	3,738,193
Delaware	1,490,673	595,707	7,283	-	-	2,093,663
Florida	23,964,989	11,703,101	261,915	-	-	35,930,005
Georgia	2,538,975	1,454,978	26,641	-	-	4,020,594
Maine	1,086,950	562,040	15,333	-	-	1,664,323
Maryland	3,857,179	2,755,601	164,847	-	-	6,777,627
Massachusetts	4,712,501	2,510,764	114,702	-	-	7,337,967
New Hampshire	259,526	301,098	17,760	-	-	578,384
New Jersey	8,731,685	4,356,752	185,960	-	-	13,274,397
New York	7,193,913	5,952,485	33,909	-	-	13,180,307
North Carolina	-	4,646,520	160,692	6,021,580	6,711,048	17,539,840
Rhode Island	2,320,516	1,384,014	18,053	-	-	3,722,583
South Carolina	8,760,364	2,948,966	129,226	-	-	11,838,556
Virginia	4,549,827	2,651,161	17,923	-	-	7,218,911

¹⁵ Shore mode is separated into manmade and beach/bank in North Carolina only.

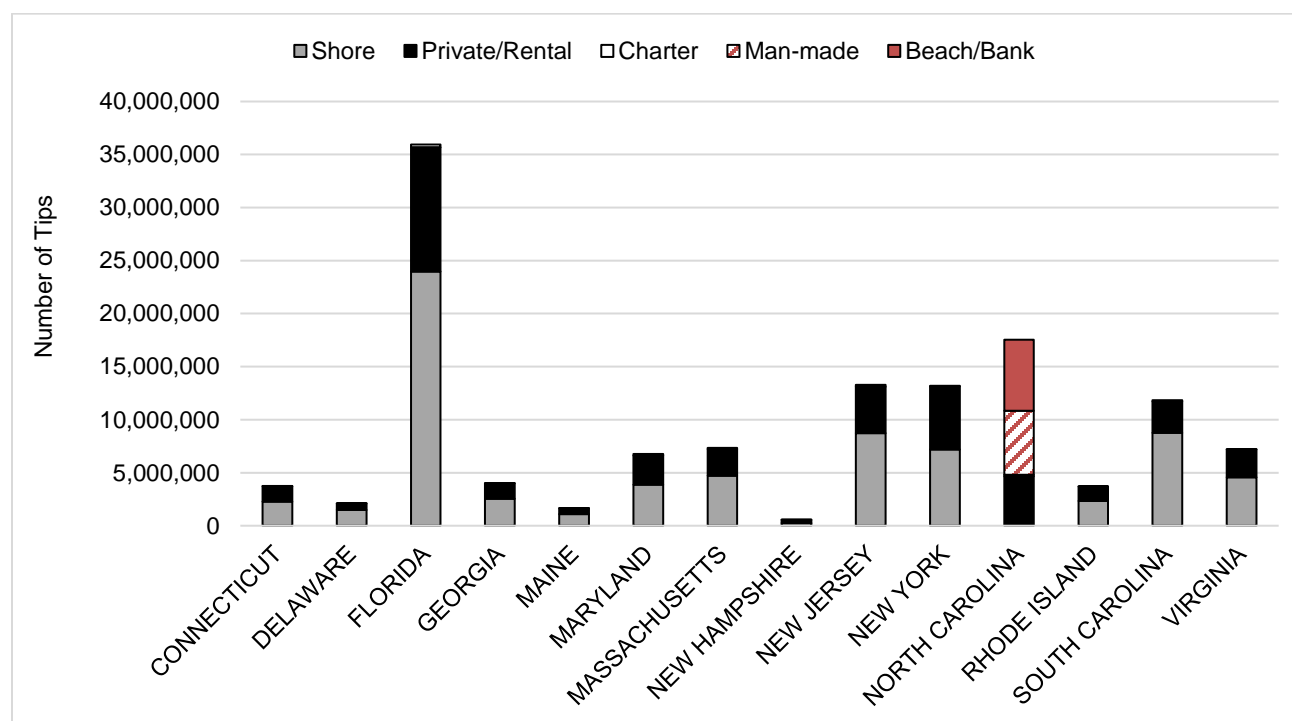
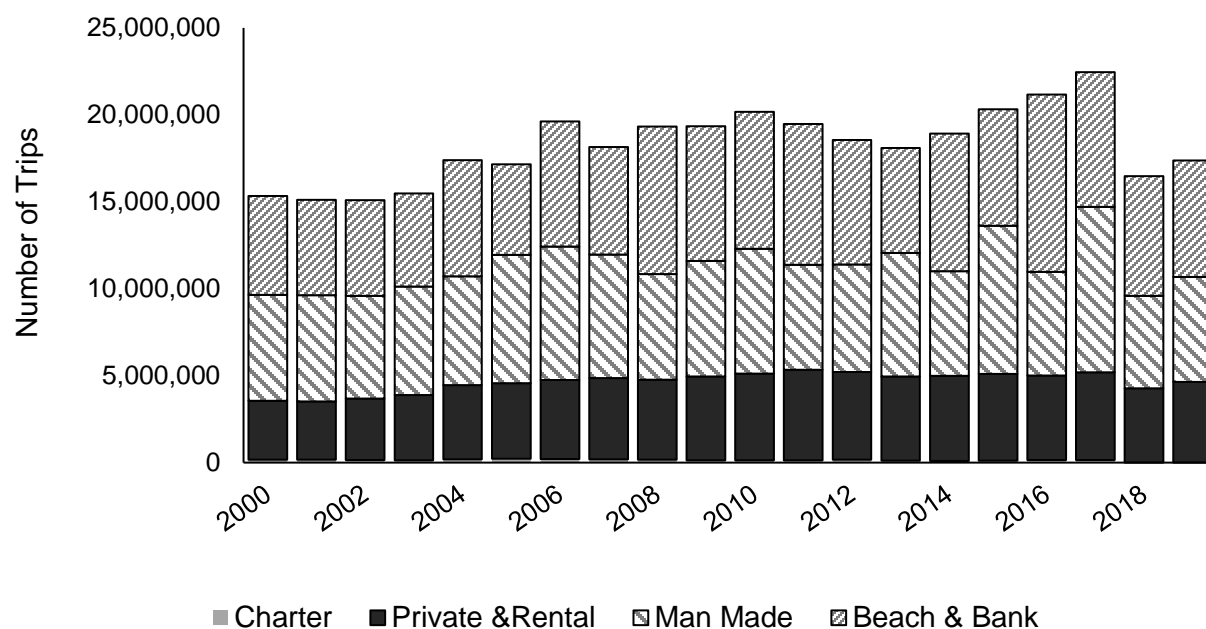


Figure III.71 Atlantic Coast saltwater fishing trips by state and mode, 2019.

Table III.79 Marine recreational fishing trips in North Carolina by mode.

Year	Number of Trips								Total
	Charter	PSE	Private & Rental	PSE	Man Made	PSE	Beach & Bank	PSE	
2019	160,692	5.4	4,646,520	4.4	6,021,580	7.8	6,711,048	10.0	17,539,840
2018	148,004	6.0	4,279,389	5.0	5,317,495	7.1	6,879,419	12.2	16,624,306
2017	149,438	6.3	5,044,731	7.9	9,512,489	7.8	7,745,619	11.2	22,452,276
2016	140,575	6.5	4,860,391	5.8	5,970,329	6.4	10,187,550	8.7	21,158,845
2015	114,043	11.6	4,992,920	5.7	8,516,390	6.4	6,699,488	15.4	20,322,840
2014	96,432	6.1	4,895,957	5.1	6,014,374	6.1	7,919,735	7.3	18,926,498
2013	111,366	5.6	4,847,955	4.4	7,097,673	5.3	6,028,869	6.2	18,085,863
2012	159,160	9.1	5,054,638	4.2	6,184,923	5.0	7,156,627	3.5	18,555,347
2011	129,380	9.0	5,212,669	4.3	6,040,312	4.6	8,086,490	4.3	19,468,851
2010	138,577	5.1	4,982,732	3.8	7,174,395	4.2	7,877,619	3.9	20,173,322
2009	129,412	6.0	4,822,295	4.1	6,642,257	6.0	7,751,222	7.6	19,345,187
2008	170,428	7.2	4,599,900	3.8	6,067,854	6.5	8,489,916	6.3	19,328,098
2007	185,618	6.4	4,671,856	3.9	7,105,305	7.0	6,183,367	6.6	18,146,146
2006	201,368	6.1	4,542,632	3.7	7,671,720	7.4	7,199,224	7.1	19,614,943
2005	214,826	10.1	4,359,576	4.2	7,369,215	8.6	5,206,759	9.4	17,150,375
2004	183,039	6.4	4,276,395	4.4	6,245,702	8.3	6,695,734	5.8	17,400,870
2003	131,566	14.6	3,746,771	3.6	6,243,796	5.6	5,353,909	5.3	15,476,042
2002	142,644	12.3	3,539,123	4.1	5,913,968	5.7	5,501,125	5.0	15,096,860
2001	160,791	12.9	3,363,853	3.4	6,105,185	6.2	5,479,658	4.6	15,109,487
2000	164,116	12.4	3,388,516	3.8	6,088,224	5.7	5,687,088	3.8	15,327,944


**Figure III.72 Marine recreational fishing trips in North Carolina by mode.**

Appendix III.1 NCDMF highly migratory species reporting stations.

Reporting Station	Location	Phone
Anchorage Marina	Atlantic Beach	252-928-6661
Captain Stacy's Fishing Center	Atlantic Beach	252-726-4675
Seawater Marina	Atlantic Beach	252-726-1637
Olde Towne Yacht Club	Beaufort	252-726-3066
Town Creek Marina	Beaufort	252-728-6111
Hurricane Fishing Center	Calabash	910-579-3660
Harker's Island Fishing Center	Harker's Island	252-728-3907
Hatteras Harbor Marina	Hatteras	252-986-2166
Oden's Dock	Hatteras	252-986-2555
Teach's Lair Marina	Hatteras	252-986-2460
Holden Beach Marina	Holden Beach	910-842-5447
Oregon Inlet Fishing Center	Manteo	252-441-6301
Pirates Cove	Manteo	252-473-3906
Shallowbag Bay Marina	Manteo	252-305-8726
Carolina Princess	Morehead City	252-726-5479
Portside Marina	Morehead City	252-726-7678
Ocean Isle Fishing Center	Ocean Isle	910-575-3474
Anchorage Marina	Ocracoke	252-726-4423
Southport Marina	Southport	910-457-9900
Outer Banks Marina	Wanchese	252-473-9991
Creekside Yacht Club	Wilmington	910-350-0023
Bridge Tender Marina	Wrightsville Beach	910-256-6550
DMF Technician	Mobile	N/A
DMF Call-in	Mobile	800-682-2632

Appendix III.2 North Carolina APAIS Intercept Form.

2018 APAIS - Atlantic Intercept Form
OMB NO. 0648-0659
EXPIRES 03-31-2019

1. FORM 

2. ASSIGNMENT NO.

3. INTERVIEWER ID

4. DATE: MM/DD

5. INTERCEPT NO.

6. INTERVIEW TIME (use 2400 clock) Time this interview was completed

7. STATE CODE

8. COUNTY CODE

9. SITE CODE

10. INTERVIEW STATUS (Key Item = *)
1 ☐ Questionnaire Complete
2 ☐ Refused Non-Key Item
5 ☐ Refused Key Item

READ PRIVACY ACT: This study is being conducted in accordance with the privacy act of 1974. You are not required to answer any question that you consider to be an invasion of your privacy.

*11. Would you say you were fishing from ...
SHORE
0 ☐ Pier
1 ☐ Dock
2 ☐ Jetty, Breakwater
3 ☐ Bridge, Causeway
4 ☐ Other Man-made Structure (Specify) _____
5 ☐ Beach or Bank (Additional hours required in Q16)
BOAT
6 ☐ Headboat
7 ☐ Charterboat
8 ☐ Private Boat
9 ☐ Rental Boat

*12. Was most of your (specify mode) fishing effort today in the ... (Select only one)
1 ☐ Ocean/Gulf
2 ☐ Sound (Other than listed)
3 ☐ River (Other than listed)
4 ☐ Bay (Other than listed)
5 ☐ Other (Specify) _____
V ☐ Cape Cod Bay
A ☐ Narragansett Estuary
B ☐ Buzzard's Bay Estuary
C ☐ Long Island Estuary
D ☐ Hudson/Raritan Estuary
E ☐ Delaware Estuary
F ☐ Chesapeake Estuary
G ☐ Abemario/Pamlico Estuary

*13. Was that ...
1 ☐ Three Miles or Less From Shore
2 ☐ More Than Three Miles
8 ☐ Waterbody Does Not Apply

13a. Were you fishing an artificial reef today?
☐ Yes If yes, enter Reef Code
☐ No If "Don't Know" = 998
If "Refused" = 999

Name: _____

14. What type of gear was primarily used? (Select one only)
01 ☐ Hook and Line
02 ☐ Dip Net, A-frame
03 ☐ Cast Net
04 ☐ Gill Net
05 ☐ Seine
06 ☐ Trawl
07 ☐ Trap
08 ☐ Spear
09 ☐ Hand
10 ☐ Other (Specify) _____
98 ☐ Unknown
99 ☐ Refused

15a. To the nearest half-hour, how many hours have you spent (specify mode) fishing today? That is, how many hours have you actually spent with your gear in the water?
 No. of Hours
If "Don't Know" = 99.8
If "Refused" = 99.9

15b. [If on boat] To the nearest half-hour, how many hours have you spent on the boat, away from the dock, today?
 No. of Hours
If "Don't Know" = 99.8
If "Refused" = 99.9
☐ Not Applicable - SH mode

16. [Ask, only if "Beach" or "Bank"] How many additional hours do you expect to fish from shore today? That is, how many more hours will you actually have your gear in the water?
 No. of Hours
If "Don't Know" = 99.8
If "Refused" = 99.9
☐ Not fishing from Beach or Bank

17. What species were you primarily fishing for today?
☐ No Particular Species/Anything
1st Target
2nd Target

18. Not counting today, within the past 12 months, that is since (insert month) of last year, how many days have you gone saltwater sport finfishing in this state or from a boat launched in this state?
 No. of days
998 ☐ Don't Know
999 ☐ Refused

19. Not counting today, within the past 2 months, how many days?
 No. of days
98 ☐ Don't Know
99 ☐ Refused

*20. What is your state and county of residence? If county unknown, ask: What city or town do you live in?
 State Code; Name: _____
If foreign country code = 97
 County Code; Name: _____
If foreign country code = 997

21. What is the ZIP code of your residence?

9997 ☐ Foreign Country
9998 ☐ Don't Know
9999 ☐ Refused

23. At which of the following types of addresses does your household currently receive mail? (Mark all that apply)
YES NO
☐ ☐ Street address with a house or building number
☐ ☐ Address with a rural route number
☐ ☐ U.S. Post Office Box (P.O. Box)
☐ ☐ Commercial mail box business (e.g., Mailboxes, Etc., UPS Store)
☐ ☐ Other (Specify) _____
☐ ☐ Don't Know
☐ ☐ Refused

23a. Gender (observed, do not ask)
☐ Male
☐ Female

23b. How old were you on your last birthday?
 Age
☐ Refused

Note: NCDMF stopped using paper surveys and transitioned to electronic methods in 2019.

Note: NCDMF stopped using paper surveys and transitioned to electronic methods in 2019.

Appendix III.3 North Carolina Fishing Effort Survey.

HOUSEHOLD MEMBER 4	HOUSEHOLD MEMBER 5
<p>11 What is this person's gender?</p> <p><input type="checkbox"/> Male</p> <p><input type="checkbox"/> Female</p>	<p>11 What is this person's gender?</p> <p><input type="checkbox"/> Male</p> <p><input type="checkbox"/> Female</p>
<p>12 How old is this person?</p> <p><i>If less than 1 year, mark 0 years</i></p> <p><input type="text"/> <input type="text"/> Age in years</p>	<p>12 How old is this person?</p> <p><i>If less than 1 year, mark 0 years</i></p> <p><input type="text"/> <input type="text"/> Age in years</p>
<p>13 Is this person of Hispanic, Latino, or Spanish origin?</p> <p><input type="checkbox"/> Yes, of Hispanic origin</p> <p><input type="checkbox"/> No, not of Hispanic origin</p>	<p>13 Is this person of Hispanic, Latino, or Spanish origin?</p> <p><input type="checkbox"/> Yes, of Hispanic origin</p> <p><input type="checkbox"/> No, not of Hispanic origin</p>
<p>14 What is this person's race? Mark one or more boxes.</p> <p><input type="checkbox"/> White</p> <p><input type="checkbox"/> Black, African-American</p> <p><input type="checkbox"/> Asian</p> <p><input type="checkbox"/> American Indian or Alaska Native</p> <p><input type="checkbox"/> Native Hawaiian or other Pacific Islander</p>	<p>14 What is this person's race? Mark one or more boxes.</p> <p><input type="checkbox"/> White</p> <p><input type="checkbox"/> Black, African-American</p> <p><input type="checkbox"/> Asian</p> <p><input type="checkbox"/> American Indian or Alaska Native</p> <p><input type="checkbox"/> Native Hawaiian or other Pacific Islander</p>
<p>Please think only about recreational <u>saltwater</u> fishing in <u>North Carolina</u>.</p>	<p>Please think only about recreational <u>saltwater</u> fishing in <u>North Carolina</u>.</p>
<p>15 How many days did this person go recreational <u>saltwater</u> fishing from the SHORE in <u>North Carolina</u>?</p> <p><i>The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.</i></p> <p><input type="checkbox"/> Did not recreational saltwater fish from shore in last 12 months → Go to question 16</p> <p><input type="text"/> <input type="text"/> Number of days saltwater shore fishing in January and February of 2018</p> <p><input type="text"/> <input type="text"/> Number of days saltwater shore fishing in last 12 months, including January and February</p>	<p>15 How many days did this person go recreational <u>saltwater</u> fishing from the SHORE in <u>North Carolina</u>?</p> <p><i>The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.</i></p> <p><input type="checkbox"/> Did not recreational saltwater fish from shore in last 12 months → Go to question 16</p> <p><input type="text"/> <input type="text"/> Number of days saltwater shore fishing in January and February of 2018</p> <p><input type="text"/> <input type="text"/> Number of days saltwater shore fishing in last 12 months, including January and February</p>
<p>16 How many days did this person go recreational <u>saltwater</u> fishing from a private or rental BOAT that returned to shore in <u>North Carolina</u>?</p> <p><i>Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.</i></p> <p><input type="checkbox"/> Did not recreational saltwater fish from private boat in last 12 months</p> <p><input type="text"/> <input type="text"/> Number of days saltwater boat fishing in January and February of 2018</p> <p><input type="text"/> <input type="text"/> Number of days saltwater boat fishing in last 12 months, including January and February</p> <p>If you have more people in your household, continue to Household Member 5. If you have answered for all people in your household, please return your survey.</p>	<p>16 How many days did this person go recreational <u>saltwater</u> fishing from a private or rental BOAT that returned to shore in <u>North Carolina</u>?</p> <p><i>Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.</i></p> <p><input type="checkbox"/> Did not recreational saltwater fish from private boat in last 12 months</p> <p><input type="text"/> <input type="text"/> Number of days saltwater boat fishing in January and February of 2018</p> <p><input type="text"/> <input type="text"/> Number of days saltwater boat fishing in last 12 months, including January and February</p> <p>Please return your survey in the enclosed postage-paid envelope.</p> <p>RTI International 5265 Capital Boulevard, Raleigh NC 27690-1652</p>

North Carolina

Weather and Outdoor Activity Survey



Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Rob Andrews, NOAA Fisheries Service, 1315 East-West Hwy., Silver Spring, MD 20910.

No personally identifiable information will be collected through this survey. Responses will only be associated with a unique, randomly assigned identification code. Any public release of survey data will be without identification as to its source or in aggregate statistical form. All survey data will be stored on secured, password protected servers, and all transfer of survey data will utilize secure file transfer protocols.

Appendix III.3 North Carolina Fishing Effort Survey (continued).

This survey should be filled out by an adult member of the household. Complete and return this form even if no one in your household participates in any of these activities.

START HERE

Please carefully follow the steps below when completing this survey.

• Use only a blue or black ink pen that does not blot the paper

• Make solid marks inside the response boxes

• Do not make other marks on the survey

Example

RIGHT WAY: ☒ WRONG WAY: ☒

1 How do members of this household obtain information about the weather, including current weather conditions, forecasts, and warnings? Mark all that apply.

☐ Television
☐ Radio
☐ Newspaper
☐ Internet
☐ Other

2 During the past 12 months, has anyone in this household had to evacuate or seek shelter due to a severe weather event, such as a tornado, hurricane, or thunderstorm?

☐ Yes
☐ No

3 In your area, how often do the advanced warnings you get for severe weather events allow you enough time to prepare properly?

☐ All the Time
☐ Some of the time
☐ Rarely
☐ Never

4 During the past 12 months, has anyone in this household visited a public beach, national seashore, coastal state park, or other coastal nature reserve or protected area?

☐ Yes
☐ No

5 During the past 12 months, has anyone in this household been freshwater fishing in North Carolina?

☐ Yes
☐ No

6 During the past 12 months, has anyone in this household been saltwater fishing in North Carolina?

☐ Yes
☐ No

7 Which of the following best describes how your household receives telephone calls?

☐ All are received on cell phones
☐ Most are received on cell phones
☐ Some are received on cell phones and some on landline phones
☐ Most are received on landline phones
☐ All are received on landline phones
☐ No calls are received on cell phones or landline phones

8 Which of the following best describes this house, apartment, or mobile home?

☐ Owned with a mortgage or loan
☐ Owned (without a mortgage)
☐ Rented
☐ Occupied without payment or rent

9 How long have you lived at this address?

☐ 1 year or less
☐ Less than 5 years, more than 1 year
☐ 5 years or more

10 How many people, including all adults and children, live in this household?

Number of people

Please answer the next section for each member of your household, starting with yourself. Please answer for all people in your home, including people who fish and people who do not fish.

If you have more than 5 people living at this address, answer for the oldest members of the household.

Please use the calendars to help answer questions 15 and 16.

January							February						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6								1
7	8	9	10	11	12	13	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28			

HOUSEHOLD MEMBER 1 (YOU)

11 What is your gender?

☐ Male
☐ Female

12 How old are you?

If less than 1 year, mark 0 years

Age in years

13 Are you of Hispanic, Latino, or Spanish origin?

☐ Yes, of Hispanic origin
☐ No, not of Hispanic origin

14 What is your race? Mark one or more boxes.

☐ White
☐ Black, African-American
☐ Asian
☐ American Indian or Alaska Native
☐ Native Hawaiian or other Pacific Islander

Please think only about recreational saltwater fishing in North Carolina.

15 How many days did you go recreational saltwater fishing from the SHORE in North Carolina?

The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.

☐ Did not recreational saltwater fish from shore in last 12 months → Go to question 16

Number of days saltwater shore fishing in January and February of 2018

Number of days saltwater shore fishing in last 12 months, including January and February

16 How many days did you go recreational saltwater fishing from a private or rental BOAT that returned to shore in North Carolina?

Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.

☐ Did not recreational saltwater fish from private boat in last 12 months

Number of days saltwater boat fishing in January and February of 2018

Number of days saltwater boat fishing in last 12 months, including January and February

If you have more people in your household, continue to Household Member 2. If you have answered for all people in your household, please return your survey.

HOUSEHOLD MEMBER 2

11 What is this person's gender?

☐ Male
☐ Female

12 How old is this person?

If less than 1 year, mark 0 years

Age in years

13 Is this person of Hispanic, Latino, or Spanish origin?

☐ Yes, of Hispanic origin
☐ No, not of Hispanic origin

14 What is this person's race? Mark one or more boxes.

☐ White
☐ Black, African-American
☐ Asian
☐ American Indian or Alaska Native
☐ Native Hawaiian or other Pacific Islander

Please think only about recreational saltwater fishing in North Carolina.

15 How many days did this person go recreational saltwater fishing from the SHORE in North Carolina?

The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.

☐ Did not recreational saltwater fish from shore in last 12 months → Go to question 16

Number of days saltwater shore fishing in January and February of 2018

Number of days saltwater shore fishing in last 12 months, including January and February

16 How many days did this person go recreational saltwater fishing from a private or rental BOAT that returned to shore in North Carolina?

Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.

☐ Did not recreational saltwater fish from private boat in last 12 months

Number of days saltwater boat fishing in January and February of 2018

Number of days saltwater boat fishing in last 12 months, including January and February

If you have more people in your household, continue to Household Member 3. If you have answered for all people in your household, please return your survey.

HOUSEHOLD MEMBER 3

11 What is this person's gender?

☐ Male
☐ Female

12 How old is this person?

If less than 1 year, mark 0 years

Age in years

13 Is this person of Hispanic, Latino, or Spanish origin?

☐ Yes, of Hispanic origin
☐ No, not of Hispanic origin

14 What is this person's race? Mark one or more boxes.

☐ White
☐ Black, African-American
☐ Asian
☐ American Indian or Alaska Native
☐ Native Hawaiian or other Pacific Islander

Please think only about recreational saltwater fishing in North Carolina.

15 How many days did this person go recreational saltwater fishing from the SHORE in North Carolina?

The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.

☐ Did not recreational saltwater fish from shore in last 12 months → Go to question 16

Number of days saltwater shore fishing in January and February of 2018

Number of days saltwater shore fishing in last 12 months, including January and February

16 How many days did this person go recreational saltwater fishing from a private or rental BOAT that returned to shore in North Carolina?

Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.

☐ Did not recreational saltwater fish from private boat in last 12 months

Number of days saltwater boat fishing in January and February of 2018

Number of days saltwater boat fishing in last 12 months, including January and February

If you have more people in your household, continue to Household Member 4. If you have answered for all people in your household, please return your survey.

Appendix III.4 Glossary of terminology in MRIP survey.

Avidity: The frequency of fishing activity, measured as number of days on which fishing trips were made.

Type A catch: Fish that were caught, were landed whole, and were available for identification and enumeration by the interviewers. In addition, the fish were potentially available for weighing and measuring.

Type B catch: Fish that were caught but were either not kept or not available for identification.

Type B1 catch: Fish that were caught and filleted, released dead, given away, or disposed of in some way other than Types A or B2.

Type B2 catch: Fish that were caught and released alive.

Total catch: The number of fish caught but not necessarily brought ashore, may be obtained by summing catch types A and B or by summing catch types A, B1, and B2. The total number of fish removed from the fishery resource may be obtained by summing catch types A and B1.

Coastal counties: All counties in the coastal states of the United States with some portion within 25 miles of the coastline were included in the Fishing Effort Survey. This boundary was extended to 50 miles in the South Atlantic and Gulf of Mexico from May through October. The boundary was extended further in North Carolina to 50 miles November through April and 100 miles May through October.

Coastal resident: An angler who lived in a coastal county included in the Fishing Effort Survey.

Coastal state: A state bordering on the Atlantic or Pacific Ocean, the Gulf of Mexico or the Caribbean Sea. State also includes a Territory or Commonwealth.

Congener: An organism of the same taxonomic genus as another.

EEZ (U.S. Exclusive Economic Zone): The MFCMA defines this zone as contiguous to the Territorial Sea of all the United States and its possessions and extending seaward 200 nautical miles measured from the baseline from which the Territorial Sea is measured.

Fishery Management Plan (FMP): A plan developed by a Regional Fishery Management Council and the Secretary of the Department of Commerce to manage a fishery resource pursuant to the Magnuson Fishery Conservation and Management Act of 1976.

Fishing access site: Fishing access site refers to the name and location of the place where anglers were intercepted. Each intercept site was given a unique name and code number. The fishing access site did not define the mode of fishing since anglers may have used more than one mode at any given site.

Fishing trip: Fishing during part or all of 1 day in one mode. An angler who fished from both a pier and a beach on the same day made one fishing trip since the pier and the beach are both in the shore mode. However, an angler who fished from a head boat in the morning and from a pier in the afternoon is counted as having made two fishing trips--a head boat trip and a shore trip.

Hours fished: The amount of time an angler actively fished in a mode with fishing gear in the water. If an angler spent time fishing at other sites on the same day, that time was also included provided the fishing was done in the same mode. Not included was the travel time in a boat or travel time between sites.

Household: A household consisted of all persons who occupied a housing unit. The unit must have been intended for year-round use, not seasonal or migratory use.

Intercept survey or creel census: Interviewing anglers and examining their catch upon completion of their fishing trip, or under certain circumstances, while they were still fishing.

Length and weight of fish: Length and weight measurements were obtained from a sample of fish brought ashore in whole form by intercepted anglers. If more than 10 fish of the same species were brought ashore in whole form, 10 fish were randomly selected to be weighed and measured. If 10 or less fish of the same species were brought ashore in whole form, each fish was weighed and measured. For fish with a forked tail, fork length was measured from the tip of the longest jaw or the snout, whichever was terminal with the mouth closed, to the center of the fork. For fish with a non-forked tail, total length was measured from the tip of the longest jaw or the snout, whichever was terminal with the mouth closed, to the tip of the caudal lobe or fin. Weight was measured to the nearest tenth of a kilogram (1 kilogram is approximately 2.2 pounds). Length was measured to the nearest millimeter (1 millimeter is approximately 0.039 inches).

Marine recreational anglers: Those people who fished in marine waters primarily for recreational purposes. Their catch was primarily for home consumption, although occasionally a part or all of their catch may have been sold and entered commercial channels. Specifically, for this survey, marine recreational anglers were defined as follows: In the telephone household survey, an angler was anyone who had been marine recreational fishing in the 12 months prior to telephone household contact, and an eligible angler was anyone who had been marine recreational fishing 2 months prior to the telephone household contact. In the intercept survey an eligible angler was anyone just completing a finfishing trip, or in certain cases, someone who was still fishing.

Marine recreational fishing: Fishing primarily with hook and line for pleasure, amusement, relaxation, or home consumption. If part or all of the catch was sold, the monetary returns constituted an insignificant part of the person's income.

Mode of fishing: The type of place or platform from which marine recreational fishing occurs. There are four modes:

1. Shore: A shore may be:

Pier, dock: A structure built over the water and supported by pillars.

Jetty: A kind of wall, usually made of rocks, built out into the water or parallel to the shore to restrain currents or protect a harbor.

Breakwater: An offshore structure used to protect a harbor or breach from the forces of waves.

Bridge: An elevated or raised way across wet ground or water.

Causeway: A connecting channel.

Beach: A level stretch of pebbles or sand beside a body of water, often washed by high water.

Bank: A stretch of rising land at the edge of a body of water not washed by high water, which could be rocks or an overhanging cliff.

2. Private/Rental: A boat belonging to an individual or one that is rented. No crew is provided; operated by the owner/renter.

3. Headboat: A boat operated by licensed captain usually carrying greater than seven anglers. Fees are paid on a per head (angler) basis.

4. Charter Boat: A boat operating under charter for a price, time, etc. It is operated by a licensed captain and crew and the participants are part of a pre-formed group of anglers. Thus, charters are usually closed parties. Note: Charter boats may make all-day or half-day trips.

Non-coastal resident: An angler who lived in a county of a coastal state that was not included in the telephone household survey.

Out-of-state resident: An angler who lived in a state other than the coastal state in which he fished.

Ocean: For the purposes of the survey, ocean is divided into two categories:

The ocean 3 miles or less from shore (Territorial Sea) and the ocean more than 3 miles from shore (Exclusive Economic Zone). However, the boundary for state and federal jurisdiction on the Gulf of Mexico coast of Florida is 3 marine leagues, or 10 miles, from shore. Not included are sounds, inlets, rivers, bays, etc.

Inland: Other bodies of saltwater besides the oceans. Included are sounds, inlets, and tidal portions of rivers, bay, estuaries, and other areas of salt or brackish water.

State of fishing access (State of intercept): The state in which the fishing or intercept site was located. For boat fishing, it was the state from which the boat departed the shoreline for fishing.

state of residence: The state in which the angler lived and maintained his permanent residence.

U.S. Territorial Sea: A zone extending 3 nautical miles from shore for all states except the Gulf coast of Florida where the seaward boundary is 3 marine leagues (approximately 10 statute miles).

Wave: A wave is one of the following 2-month intervals:

- January/February (Wave 1)
- March/April (Wave 2)
- May/June (Wave 3)
- July/August (Wave 4)
- September/October (Wave 5)
- November/December (Wave 6)

Appendix III.5 Data elements in MRIP survey.

Dockside Interviews

- State and county of residence
- Avidity level - trips per year
- Mode of fishing
- Primary area of fishing
- Number of anglers contributing to catch
- Number, weights, and lengths of fish caught by species

Fishing Effort Survey

- Gender
- Age
- Ethnicity
- Presence of marine recreational anglers in the household
- Number of anglers per household
- Fishing trips in 2-month period
- Fishing trips in 12-month period
- Mode of each trip

Intercept Data

- Date, location, and site of interview
- Mode of fishing
- Tournament fishing status
- Fishing location
- Gear type
- Hours of fishing time
- Targeted species
- Number of days fished in last year
- State and county of residence
- Sex and age of angler
- Number and types of Type 2 fish (unavailable catch)
- Number of contributors and people in fishing party
- Length and weight of Type 3 fish (available catch)

Expanded Data

- Estimated number of trips in a mode
- Percent of trips in a mode
- Number of trips in a specific mode and area
- Data on groups or types of fish caught in a mode or area
- Estimated numbers of Type A, B1, or B2 fishes caught or released (including variances)
- Estimated weights or lengths of specific types of fish (including variances)
- Number of interviews conducted in specific modes or sites by year, month, etc.
- Catch per trip (including variances)
- Mean weight and/or length of fish from a specific area, mode, etc.